

AP-111

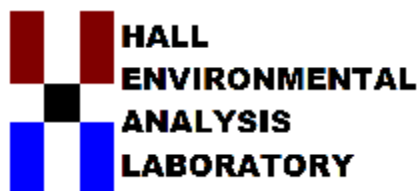
AGWMR

12 of 12

2013

APPENDIX K

Hall Laboratory Analytical Data



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

April 01, 2013

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 2013 1st Quarter

OrderNo.: 1303775

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 3/20/2013 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. 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. 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.

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 1303775

Date Reported: 4/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: AL-2 To EP-1

Project: 2013 1st Quarter

Collection Date: 3/19/2013 3:30:00 PM

Lab ID: 1303775-001

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: MMD
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/22/2013 2:15:27 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2013 2:15:27 PM
Surr: DNOP	113	75.4-146		%REC	1	3/22/2013 2:15:27 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.25		mg/L	5	3/22/2013 3:45:31 PM
Surr: BFB	84.3	51.9-148		%REC	5	3/22/2013 3:45:31 PM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	2.6	1.0		mg/L	10	3/21/2013 12:27:42 PM
Chloride	800	50		mg/L	100	3/21/2013 12:40:07 PM
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	3/21/2013 12:27:42 PM
Bromide	ND	1.0		mg/L	10	3/21/2013 12:27:42 PM
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	3/21/2013 12:27:42 PM
Phosphorus, Orthophosphate (As P)	5.2	5.0		mg/L	10	3/21/2013 12:27:42 PM
Sulfate	750	50		mg/L	100	3/21/2013 12:40:07 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	0.026	0.0020		mg/L	1	3/25/2013 12:27:34 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 5:40:38 PM
Calcium	260	10		mg/L	10	3/25/2013 12:30:11 PM
Chromium	ND	0.0060		mg/L	1	3/25/2013 12:27:34 PM
Copper	ND	0.0060		mg/L	1	3/25/2013 12:27:34 PM
Iron	0.20	0.020		mg/L	1	3/25/2013 12:27:34 PM
Lead	ND	0.0050		mg/L	1	3/25/2013 5:40:38 PM
Magnesium	59	1.0		mg/L	1	3/25/2013 12:27:34 PM
Manganese	0.097	0.0020	*	mg/L	1	3/25/2013 12:27:34 PM
Potassium	31	1.0		mg/L	1	3/25/2013 5:40:38 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 12:27:34 PM
Sodium	490	10		mg/L	10	3/25/2013 12:30:11 PM
Zinc	0.025	0.010		mg/L	1	3/25/2013 5:40:38 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.029	0.0020		mg/L	1	3/25/2013 9:15:14 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 9:15:14 PM
Chromium	ND	0.0060		mg/L	1	3/25/2013 9:15:14 PM
Copper	0.014	0.0060		mg/L	1	3/25/2013 9:15:14 PM
Iron	0.68	0.020	*	mg/L	1	3/25/2013 9:15:14 PM
Lead	ND	0.0050		mg/L	1	3/25/2013 9:15:14 PM
Manganese	0.099	0.0020	*	mg/L	1	3/25/2013 9:15:14 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 9:15:14 PM
Zinc	0.066	0.010		mg/L	1	3/25/2013 9:15:14 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD

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Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0046	0.0010		mg/L	1	3/21/2013 5:14:36 PM
Selenium	0.0021	0.0010		mg/L	1	3/21/2013 5:14:36 PM
Uranium	ND	0.020		mg/L	20	3/29/2013 2:41:11 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0052	0.0025		mg/L	2.5	3/25/2013 12:59:41 PM
Selenium	ND	0.0025		mg/L	2.5	3/25/2013 12:59:41 PM
Uranium	ND	0.0025		mg/L	2.5	3/27/2013 12:23:18 PM
EPA METHOD 245.1: MERCURY						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	3/22/2013 10:13:39 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Acenaphthylene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Aniline	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Anthracene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Azobenzene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Benz(a)anthracene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Benzo(a)pyrene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Benzoic acid	ND	100		µg/L	1	3/21/2013 5:47:01 PM
Benzyl alcohol	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	3/21/2013 5:47:01 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Butyl benzyl phthalate	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Carbazole	ND	50		µg/L	1	3/21/2013 5:47:01 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	3/21/2013 5:47:01 PM
4-Chloroaniline	ND	50		µg/L	1	3/21/2013 5:47:01 PM
2-Chloronaphthalene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
2-Chlorophenol	ND	50		µg/L	1	3/21/2013 5:47:01 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Chrysene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Di-n-butyl phthalate	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Di-n-octyl phthalate	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Dibenzofuran	ND	50		µg/L	1	3/21/2013 5:47:01 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	3/21/2013 5:47:01 PM

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EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
1,3-Dichlorobenzene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Diethyl phthalate	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Dimethyl phthalate	ND	50		µg/L	1	3/21/2013 5:47:01 PM
2,4-Dichlorophenol	ND	100		µg/L	1	3/21/2013 5:47:01 PM
2,4-Dimethylphenol	ND	50		µg/L	1	3/21/2013 5:47:01 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	3/21/2013 5:47:01 PM
2,4-Dinitrophenol	ND	100		µg/L	1	3/21/2013 5:47:01 PM
2,4-Dinitrotoluene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Fluoranthene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Fluorene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Hexachlorobenzene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Hexachlorobutadiene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Hexachloroethane	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Isophorone	ND	50		µg/L	1	3/21/2013 5:47:01 PM
1-Methylnaphthalene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
2-Methylnaphthalene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
2-Methylphenol	ND	50		µg/L	1	3/21/2013 5:47:01 PM
3+4-Methylphenol	ND	50		µg/L	1	3/21/2013 5:47:01 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	3/21/2013 5:47:01 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	3/21/2013 5:47:01 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Naphthalene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
2-Nitroaniline	ND	50		µg/L	1	3/21/2013 5:47:01 PM
3-Nitroaniline	ND	50		µg/L	1	3/21/2013 5:47:01 PM
4-Nitroaniline	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Nitrobenzene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
2-Nitrophenol	ND	50		µg/L	1	3/21/2013 5:47:01 PM
4-Nitrophenol	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Pentachlorophenol	ND	100		µg/L	1	3/21/2013 5:47:01 PM
Phenanthrene	57	50		µg/L	1	3/21/2013 5:47:01 PM
Phenol	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Pyrene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Pyridine	ND	50		µg/L	1	3/21/2013 5:47:01 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	3/21/2013 5:47:01 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	3/21/2013 5:47:01 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	3/21/2013 5:47:01 PM
Surr: 2,4,6-Tribromophenol	51.0	42.9-124		%REC	1	3/21/2013 5:47:01 PM

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Lab Order 1303775

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CLIENT: Western Refining Southwest, Gallup

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Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Surr: 2-Fluorobiphenyl	39.5	40-108	S	%REC	1	3/21/2013 5:47:01 PM
Surr: 2-Fluorophenol	32.5	23.6-94.8		%REC	1	3/21/2013 5:47:01 PM
Surr: 4-Terphenyl-d14	56.8	41.9-103		%REC	1	3/21/2013 5:47:01 PM
Surr: Nitrobenzene-d5	41.5	42.6-114	S	%REC	1	3/21/2013 5:47:01 PM
Surr: Phenol-d5	23.9	20.3-74.7		%REC	1	3/21/2013 5:47:01 PM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
Toluene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
Ethylbenzene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
Naphthalene	ND	10		µg/L	5	3/21/2013 3:45:02 PM
1-Methylnaphthalene	ND	20		µg/L	5	3/21/2013 3:45:02 PM
2-Methylnaphthalene	ND	20		µg/L	5	3/21/2013 3:45:02 PM
Acetone	ND	50		µg/L	5	3/21/2013 3:45:02 PM
Bromobenzene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
Bromodichloromethane	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
Bromoform	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
Bromomethane	ND	15		µg/L	5	3/21/2013 3:45:02 PM
2-Butanone	ND	50		µg/L	5	3/21/2013 3:45:02 PM
Carbon disulfide	ND	50		µg/L	5	3/21/2013 3:45:02 PM
Carbon Tetrachloride	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
Chlorobenzene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
Chloroethane	ND	10		µg/L	5	3/21/2013 3:45:02 PM
Chloroform	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
Chloromethane	ND	15		µg/L	5	3/21/2013 3:45:02 PM
2-Chlorotoluene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
4-Chlorotoluene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
cis-1,2-DCE	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	3/21/2013 3:45:02 PM
Dibromochloromethane	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
Dibromomethane	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
Dichlorodifluoromethane	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
1,1-Dichloroethane	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM

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1,1-Dichloroethene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
1,2-Dichloropropane	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
1,3-Dichloropropane	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
2,2-Dichloropropane	ND	10		µg/L	5	3/21/2013 3:45:02 PM
1,1-Dichloropropene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
Hexachlorobutadiene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
2-Hexanone	ND	50		µg/L	5	3/21/2013 3:45:02 PM
Isopropylbenzene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
4-Isopropyltoluene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
4-Methyl-2-pentanone	ND	50		µg/L	5	3/21/2013 3:45:02 PM
Methylene Chloride	ND	15		µg/L	5	3/21/2013 3:45:02 PM
n-Butylbenzene	ND	15		µg/L	5	3/21/2013 3:45:02 PM
n-Propylbenzene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
sec-Butylbenzene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
Styrene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
tert-Butylbenzene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	3/21/2013 3:45:02 PM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
trans-1,2-DCE	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
Trichloroethene (TCE)	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
Trichlorofluoromethane	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
1,2,3-Trichloropropane	ND	10		µg/L	5	3/21/2013 3:45:02 PM
Vinyl chloride	ND	5.0		µg/L	5	3/21/2013 3:45:02 PM
Xylenes, Total	ND	7.5		µg/L	5	3/21/2013 3:45:02 PM
Surr: 1,2-Dichloroethane-d4	99.7	70-130		%REC	5	3/21/2013 3:45:02 PM
Surr: 4-Bromofluorobenzene	93.2	69.5-130		%REC	5	3/21/2013 3:45:02 PM
Surr: Dibromofluoromethane	94.2	70-130		%REC	5	3/21/2013 3:45:02 PM
Surr: Toluene-d8	93.5	70-130		%REC	5	3/21/2013 3:45:02 PM

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Client Sample ID: Infl to EP-1

Project: 2013 1st Quarter

Collection Date: 3/19/2013 3:45:00 PM

Lab ID: 1303775-002

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: MMD
Diesel Range Organics (DRO)	4.1	1.0		mg/L	1	3/22/2013 2:38:41 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2013 2:38:41 PM
Surr: DNOP	119	75.4-146		%REC	1	3/22/2013 2:38:41 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.25		mg/L	5	3/22/2013 4:14:04 PM
Surr: BFB	84.8	51.9-148		%REC	5	3/22/2013 4:14:04 PM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	2.9	1.0		mg/L	10	3/21/2013 1:17:20 PM
Chloride	820	50		mg/L	100	3/21/2013 1:29:44 PM
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	3/21/2013 1:17:20 PM
Bromide	ND	1.0		mg/L	10	3/21/2013 1:17:20 PM
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	3/21/2013 1:17:20 PM
Phosphorus, Orthophosphate (As P)	5.1	5.0		mg/L	10	3/21/2013 1:17:20 PM
Sulfate	760	50		mg/L	100	3/21/2013 1:29:44 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	0.028	0.0020		mg/L	1	3/25/2013 12:32:32 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 5:44:49 PM
Calcium	260	10		mg/L	10	3/25/2013 12:34:51 PM
Chromium	ND	0.0060		mg/L	1	3/25/2013 12:32:32 PM
Copper	ND	0.0060		mg/L	1	3/25/2013 12:32:32 PM
Iron	0.29	0.020		mg/L	1	3/25/2013 12:32:32 PM
Lead	ND	0.0050		mg/L	1	3/25/2013 5:44:49 PM
Magnesium	60	1.0		mg/L	1	3/25/2013 12:32:32 PM
Manganese	0.13	0.0020	*	mg/L	1	3/25/2013 12:32:32 PM
Potassium	33	1.0		mg/L	1	3/25/2013 5:44:49 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 12:32:32 PM
Sodium	500	10		mg/L	10	3/25/2013 12:34:51 PM
Zinc	0.021	0.010		mg/L	1	3/25/2013 5:44:49 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.031	0.0020		mg/L	1	3/25/2013 9:23:43 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 9:23:43 PM
Chromium	ND	0.0060		mg/L	1	3/25/2013 9:23:43 PM
Copper	0.016	0.0060		mg/L	1	3/25/2013 9:23:43 PM
Iron	0.78	0.020	*	mg/L	1	3/25/2013 9:23:43 PM
Lead	ND	0.0050		mg/L	1	3/25/2013 9:23:43 PM
Manganese	0.12	0.0020	*	mg/L	1	3/25/2013 9:23:43 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 9:23:43 PM
Zinc	0.036	0.010		mg/L	1	3/25/2013 9:23:43 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303775

Date Reported: 4/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to EP-1

Project: 2013 1st Quarter

Collection Date: 3/19/2013 3:45:00 PM

Lab ID: 1303775-002

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0054	0.0010		mg/L	1	3/26/2013 1:21:24 PM
Selenium	0.0025	0.0010		mg/L	1	3/26/2013 1:21:24 PM
Uranium	ND	0.020		mg/L	20	3/29/2013 2:43:03 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0053	0.0025		mg/L	2.5	3/25/2013 1:01:34 PM
Selenium	ND	0.0025		mg/L	2.5	3/25/2013 1:01:34 PM
Uranium	ND	0.0025		mg/L	2.5	3/27/2013 12:25:10 PM
EPA METHOD 245.1: MERCURY						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	3/22/2013 10:24:36 AM
SM5210B: BOD						Analyst: SUB
Biochemical Oxygen Demand	130	5.0		mg/L	1	3/26/2013
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Acenaphthylene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Aniline	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Anthracene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Azobenzene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Benz(a)anthracene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Benzo(a)pyrene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Benzoic acid	ND	100		µg/L	1	3/21/2013 6:18:17 PM
Benzyl alcohol	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	3/21/2013 6:18:17 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Butyl benzyl phthalate	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Carbazole	ND	50		µg/L	1	3/21/2013 6:18:17 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	3/21/2013 6:18:17 PM
4-Chloroaniline	ND	50		µg/L	1	3/21/2013 6:18:17 PM
2-Chloronaphthalene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
2-Chlorophenol	ND	50		µg/L	1	3/21/2013 6:18:17 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Chrysene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Di-n-butyl phthalate	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Di-n-octyl phthalate	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	3/21/2013 6:18:17 PM

Qualifiers:

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303775

Date Reported: 4/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to EP-1

Project: 2013 1st Quarter

Collection Date: 3/19/2013 3:45:00 PM

Lab ID: 1303775-002

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Dibenzofuran	ND	50		µg/L	1	3/21/2013 6:18:17 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Diethyl phthalate	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Dimethyl phthalate	ND	50		µg/L	1	3/21/2013 6:18:17 PM
2,4-Dichlorophenol	ND	100		µg/L	1	3/21/2013 6:18:17 PM
2,4-Dimethylphenol	ND	50		µg/L	1	3/21/2013 6:18:17 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	3/21/2013 6:18:17 PM
2,4-Dinitrophenol	ND	100		µg/L	1	3/21/2013 6:18:17 PM
2,4-Dinitrotoluene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Fluoranthene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Fluorene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Hexachlorobenzene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Hexachlorobutadiene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Hexachloroethane	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Isophorone	ND	50		µg/L	1	3/21/2013 6:18:17 PM
1-Methylnaphthalene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
2-Methylnaphthalene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
2-Methylphenol	ND	50		µg/L	1	3/21/2013 6:18:17 PM
3+4-Methylphenol	ND	50		µg/L	1	3/21/2013 6:18:17 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	3/21/2013 6:18:17 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	3/21/2013 6:18:17 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Naphthalene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
2-Nitroaniline	ND	50		µg/L	1	3/21/2013 6:18:17 PM
3-Nitroaniline	ND	50		µg/L	1	3/21/2013 6:18:17 PM
4-Nitroaniline	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Nitrobenzene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
2-Nitrophenol	ND	50		µg/L	1	3/21/2013 6:18:17 PM
4-Nitrophenol	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Pentachlorophenol	ND	100		µg/L	1	3/21/2013 6:18:17 PM
Phenanthrene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Phenol	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Pyrene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Pyridine	ND	50		µg/L	1	3/21/2013 6:18:17 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	3/21/2013 6:18:17 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	3/21/2013 6:18:17 PM

Qualifiers:

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Analytical Report

Lab Order 1303775

Date Reported: 4/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to EP-1

Project: 2013 1st Quarter

Collection Date: 3/19/2013 3:45:00 PM

Lab ID: 1303775-002

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4,6-Trichlorophenol	ND	50		µg/L	1	3/21/2013 6:18:17 PM
Surr: 2,4,6-Tribromophenol	62.5	42.9-124		%REC	1	3/21/2013 6:18:17 PM
Surr: 2-Fluorobiphenyl	58.8	40-108		%REC	1	3/21/2013 6:18:17 PM
Surr: 2-Fluorophenol	36.6	23.6-94.8		%REC	1	3/21/2013 6:18:17 PM
Surr: 4-Terphenyl-d14	67.2	41.9-103		%REC	1	3/21/2013 6:18:17 PM
Surr: Nitrobenzene-d5	60.5	42.6-114		%REC	1	3/21/2013 6:18:17 PM
Surr: Phenol-d5	27.3	20.3-74.7		%REC	1	3/21/2013 6:18:17 PM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
Toluene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
Ethylbenzene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
Naphthalene	ND	10		µg/L	5	3/21/2013 5:54:07 PM
1-Methylnaphthalene	ND	20		µg/L	5	3/21/2013 5:54:07 PM
2-Methylnaphthalene	ND	20		µg/L	5	3/21/2013 5:54:07 PM
Acetone	ND	50		µg/L	5	3/21/2013 5:54:07 PM
Bromobenzene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
Bromodichloromethane	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
Bromoform	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
Bromomethane	ND	15		µg/L	5	3/21/2013 5:54:07 PM
2-Butanone	ND	50		µg/L	5	3/21/2013 5:54:07 PM
Carbon disulfide	ND	50		µg/L	5	3/21/2013 5:54:07 PM
Carbon Tetrachloride	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
Chlorobenzene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
Chloroethane	ND	10		µg/L	5	3/21/2013 5:54:07 PM
Chloroform	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
Chloromethane	ND	15		µg/L	5	3/21/2013 5:54:07 PM
2-Chlorotoluene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
4-Chlorotoluene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
cis-1,2-DCE	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	3/21/2013 5:54:07 PM
Dibromochloromethane	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
Dibromomethane	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303775

Date Reported: 4/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to EP-1

Project: 2013 1st Quarter

Collection Date: 3/19/2013 3:45:00 PM

Lab ID: 1303775-002

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Dichlorodifluoromethane	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
1,1-Dichloroethane	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
1,1-Dichloroethene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
1,2-Dichloropropane	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
1,3-Dichloropropane	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
2,2-Dichloropropane	ND	10		µg/L	5	3/21/2013 5:54:07 PM
1,1-Dichloropropene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
Hexachlorobutadiene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
2-Hexanone	ND	50		µg/L	5	3/21/2013 5:54:07 PM
Isopropylbenzene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
4-Isopropyltoluene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
4-Methyl-2-pentanone	ND	50		µg/L	5	3/21/2013 5:54:07 PM
Methylene Chloride	ND	15		µg/L	5	3/21/2013 5:54:07 PM
n-Butylbenzene	ND	15		µg/L	5	3/21/2013 5:54:07 PM
n-Propylbenzene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
sec-Butylbenzene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
Styrene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
tert-Butylbenzene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	3/21/2013 5:54:07 PM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
trans-1,2-DCE	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
Trichloroethene (TCE)	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
Trichlorofluoromethane	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
1,2,3-Trichloropropane	ND	10		µg/L	5	3/21/2013 5:54:07 PM
Vinyl chloride	ND	5.0		µg/L	5	3/21/2013 5:54:07 PM
Xylenes, Total	ND	7.5		µg/L	5	3/21/2013 5:54:07 PM
Surr: 1,2-Dichloroethane-d4	99.4	70-130		%REC	5	3/21/2013 5:54:07 PM
Surr: 4-Bromofluorobenzene	94.7	69.5-130		%REC	5	3/21/2013 5:54:07 PM
Surr: Dibromofluoromethane	91.1	70-130		%REC	5	3/21/2013 5:54:07 PM
Surr: Toluene-d8	95.9	70-130		%REC	5	3/21/2013 5:54:07 PM
EPA METHOD 410.1: COD						Analyst: SUB
Chemical Oxygen Demand	440	10		mg/L	1	3/22/2013
SM4500-H+B: PH						Analyst: JML
pH	7.88	1.68	H	pH units	1	3/20/2013 5:49:31 PM

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303775

Date Reported: 4/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to AL-2

Project: 2013 1st Quarter

Collection Date: 3/19/2013 4:25:00 PM

Lab ID: 1303775-003

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: MMD
Diesel Range Organics (DRO)	2.1	1.0		mg/L	1	3/22/2013 3:00:28 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2013 3:00:28 PM
Surr: DNOP	122	75.4-146		%REC	1	3/22/2013 3:00:28 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.25		mg/L	5	3/22/2013 4:42:42 PM
Surr: BFB	84.4	51.9-148		%REC	5	3/22/2013 4:42:42 PM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Chloride	750	50		mg/L	100	3/21/2013 1:54:34 PM
SM5210B: BOD						Analyst: SUB
Biochemical Oxygen Demand	98	5.0		mg/L	1	3/26/2013
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Acenaphthylene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Aniline	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Anthracene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Azobenzene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Benz(a)anthracene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Benzo(a)pyrene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Benzoic acid	ND	100		µg/L	1	3/21/2013 6:49:34 PM
Benzyl alcohol	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	3/21/2013 6:49:34 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Butyl benzyl phthalate	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Carbazole	ND	50		µg/L	1	3/21/2013 6:49:34 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	3/21/2013 6:49:34 PM
4-Chloroaniline	ND	50		µg/L	1	3/21/2013 6:49:34 PM
2-Chloronaphthalene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
2-Chlorophenol	ND	50		µg/L	1	3/21/2013 6:49:34 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Chrysene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Di-n-butyl phthalate	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Di-n-octyl phthalate	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Dibenzofuran	ND	50		µg/L	1	3/21/2013 6:49:34 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303775

Date Reported: 4/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to AL-2

Project: 2013 1st Quarter

Collection Date: 3/19/2013 4:25:00 PM

Lab ID: 1303775-003

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
1,2-Dichlorobenzene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Diethyl phthalate	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Dimethyl phthalate	ND	50		µg/L	1	3/21/2013 6:49:34 PM
2,4-Dichlorophenol	ND	100		µg/L	1	3/21/2013 6:49:34 PM
2,4-Dimethylphenol	ND	50		µg/L	1	3/21/2013 6:49:34 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	3/21/2013 6:49:34 PM
2,4-Dinitrophenol	ND	100		µg/L	1	3/21/2013 6:49:34 PM
2,4-Dinitrotoluene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Fluoranthene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Fluorene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Hexachlorobenzene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Hexachlorobutadiene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Hexachloroethane	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Isophorone	ND	50		µg/L	1	3/21/2013 6:49:34 PM
1-Methylnaphthalene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
2-Methylnaphthalene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
2-Methylphenol	ND	50		µg/L	1	3/21/2013 6:49:34 PM
3+4-Methylphenol	ND	50		µg/L	1	3/21/2013 6:49:34 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	3/21/2013 6:49:34 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	3/21/2013 6:49:34 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Naphthalene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
2-Nitroaniline	ND	50		µg/L	1	3/21/2013 6:49:34 PM
3-Nitroaniline	ND	50		µg/L	1	3/21/2013 6:49:34 PM
4-Nitroaniline	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Nitrobenzene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
2-Nitrophenol	ND	50		µg/L	1	3/21/2013 6:49:34 PM
4-Nitrophenol	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Pentachlorophenol	ND	100		µg/L	1	3/21/2013 6:49:34 PM
Phenanthrene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Phenol	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Pyrene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
Pyridine	ND	50		µg/L	1	3/21/2013 6:49:34 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	3/21/2013 6:49:34 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	3/21/2013 6:49:34 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	3/21/2013 6:49:34 PM

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303775

Date Reported: 4/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to AL-2

Project: 2013 1st Quarter

Collection Date: 3/19/2013 4:25:00 PM

Lab ID: 1303775-003

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Surr: 2,4,6-Tribromophenol	59.9	42.9-124		%REC	1	3/21/2013 6:49:34 PM
Surr: 2-Fluorobiphenyl	58.6	40-108		%REC	1	3/21/2013 6:49:34 PM
Surr: 2-Fluorophenol	40.1	23.6-94.8		%REC	1	3/21/2013 6:49:34 PM
Surr: 4-Terphenyl-d14	74.7	41.9-103		%REC	1	3/21/2013 6:49:34 PM
Surr: Nitrobenzene-d5	61.8	42.6-114		%REC	1	3/21/2013 6:49:34 PM
Surr: Phenol-d5	28.5	20.3-74.7		%REC	1	3/21/2013 6:49:34 PM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
Toluene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
Ethylbenzene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
Naphthalene	ND	10		µg/L	5	3/21/2013 6:26:21 PM
1-Methylnaphthalene	ND	20		µg/L	5	3/21/2013 6:26:21 PM
2-Methylnaphthalene	ND	20		µg/L	5	3/21/2013 6:26:21 PM
Acetone	ND	50		µg/L	5	3/21/2013 6:26:21 PM
Bromobenzene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
Bromodichloromethane	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
Bromoform	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
Bromomethane	ND	15		µg/L	5	3/21/2013 6:26:21 PM
2-Butanone	ND	50		µg/L	5	3/21/2013 6:26:21 PM
Carbon disulfide	ND	50		µg/L	5	3/21/2013 6:26:21 PM
Carbon Tetrachloride	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
Chlorobenzene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
Chloroethane	ND	10		µg/L	5	3/21/2013 6:26:21 PM
Chloroform	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
Chloromethane	ND	15		µg/L	5	3/21/2013 6:26:21 PM
2-Chlorotoluene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
4-Chlorotoluene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
cis-1,2-DCE	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	3/21/2013 6:26:21 PM
Dibromochloromethane	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
Dibromomethane	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
Dichlorodifluoromethane	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303775

Date Reported: 4/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to AL-2

Project: 2013 1st Quarter

Collection Date: 3/19/2013 4:25:00 PM

Lab ID: 1303775-003

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
1,1-Dichloroethane	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
1,1-Dichloroethene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
1,2-Dichloropropane	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
1,3-Dichloropropane	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
2,2-Dichloropropane	ND	10		µg/L	5	3/21/2013 6:26:21 PM
1,1-Dichloropropene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
Hexachlorobutadiene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
2-Hexanone	ND	50		µg/L	5	3/21/2013 6:26:21 PM
Isopropylbenzene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
4-Isopropyltoluene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
4-Methyl-2-pentanone	ND	50		µg/L	5	3/21/2013 6:26:21 PM
Methylene Chloride	ND	15		µg/L	5	3/21/2013 6:26:21 PM
n-Butylbenzene	ND	15		µg/L	5	3/21/2013 6:26:21 PM
n-Propylbenzene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
sec-Butylbenzene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
Styrene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
tert-Butylbenzene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	3/21/2013 6:26:21 PM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
trans-1,2-DCE	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
Trichloroethene (TCE)	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
Trichlorofluoromethane	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
1,2,3-Trichloropropane	ND	10		µg/L	5	3/21/2013 6:26:21 PM
Vinyl chloride	ND	5.0		µg/L	5	3/21/2013 6:26:21 PM
Xylenes, Total	ND	7.5		µg/L	5	3/21/2013 6:26:21 PM
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	5	3/21/2013 6:26:21 PM
Surr: 4-Bromofluorobenzene	91.3	69.5-130		%REC	5	3/21/2013 6:26:21 PM
Surr: Dibromofluoromethane	92.0	70-130		%REC	5	3/21/2013 6:26:21 PM
Surr: Toluene-d8	93.3	70-130		%REC	5	3/21/2013 6:26:21 PM
EPA METHOD 410.1: COD						Analyst: SUB
Chemical Oxygen Demand	370	10		mg/L	1	3/22/2013
SM4500-H+B: PH						Analyst: JML
pH	7.97	1.68	H	pH units	1	3/20/2013 5:55:20 PM

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303775

Date Reported: 4/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Pilot Eff

Project: 2013 1st Quarter

Collection Date: 3/19/2013 4:45:00 PM

Lab ID: 1303775-004

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: MMD
Diesel Range Organics (DRO)	1.3	1.0		mg/L	1	3/22/2013 3:22:03 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2013 3:22:03 PM
Surr: DNOP	116	75.4-146		%REC	1	3/22/2013 3:22:03 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.25		mg/L	5	3/22/2013 5:11:17 PM
Surr: BFB	83.4	51.9-148		%REC	5	3/22/2013 5:11:17 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	ND	0.10		mg/L	50	3/25/2013 5:48:58 PM
Cadmium	ND	0.10		mg/L	50	3/25/2013 5:48:58 PM
Chromium	ND	0.30		mg/L	50	3/25/2013 5:48:58 PM
Copper	ND	0.30		mg/L	50	3/25/2013 5:48:58 PM
Iron	ND	1.0	*	mg/L	50	3/25/2013 5:48:58 PM
Lead	ND	0.25		mg/L	50	3/25/2013 5:48:58 PM
Manganese	ND	0.10	*	mg/L	50	3/25/2013 5:48:58 PM
Silver	ND	0.25		mg/L	50	3/25/2013 5:48:58 PM
Zinc	ND	0.50		mg/L	50	3/25/2013 5:48:58 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.052	0.0020		mg/L	1	3/25/2013 9:33:47 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 9:33:47 PM
Chromium	ND	0.0060		mg/L	1	3/25/2013 9:33:47 PM
Copper	0.072	0.0060		mg/L	1	3/25/2013 9:33:47 PM
Iron	2.1	0.10	*	mg/L	5	3/25/2013 9:37:16 PM
Lead	ND	0.0050		mg/L	1	3/25/2013 9:33:47 PM
Manganese	0.082	0.0020	*	mg/L	1	3/25/2013 9:33:47 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 9:33:47 PM
Zinc	0.18	0.010		mg/L	1	3/25/2013 9:33:47 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0019	0.0010		mg/L	1	3/21/2013 5:18:37 PM
Selenium	0.0022	0.0010		mg/L	1	3/21/2013 5:18:37 PM
Uranium	ND	0.10		mg/L	100	3/29/2013 2:46:47 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0031	0.0025		mg/L	2.5	3/25/2013 1:03:26 PM
Selenium	ND	0.0025		mg/L	2.5	3/25/2013 1:03:26 PM
Uranium	ND	0.0025		mg/L	2.5	3/27/2013 12:27:03 PM
EPA METHOD 245.1: MERCURY						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	3/22/2013 10:15:29 AM
SM5210B: BOD						Analyst: SUB
Biochemical Oxygen Demand	300	5.0		mg/L	1	3/26/2013

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Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
Toluene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
Ethylbenzene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
Naphthalene	ND	10		µg/L	5	3/21/2013 6:58:38 PM
1-Methylnaphthalene	ND	20		µg/L	5	3/21/2013 6:58:38 PM
2-Methylnaphthalene	ND	20		µg/L	5	3/21/2013 6:58:38 PM
Acetone	ND	50		µg/L	5	3/21/2013 6:58:38 PM
Bromobenzene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
Bromodichloromethane	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
Bromoform	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
Bromomethane	ND	15		µg/L	5	3/21/2013 6:58:38 PM
2-Butanone	ND	50		µg/L	5	3/21/2013 6:58:38 PM
Carbon disulfide	ND	50		µg/L	5	3/21/2013 6:58:38 PM
Carbon Tetrachloride	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
Chlorobenzene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
Chloroethane	ND	10		µg/L	5	3/21/2013 6:58:38 PM
Chloroform	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
Chloromethane	ND	15		µg/L	5	3/21/2013 6:58:38 PM
2-Chlorotoluene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
4-Chlorotoluene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
cis-1,2-DCE	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	3/21/2013 6:58:38 PM
Dibromochloromethane	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
Dibromomethane	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
Dichlorodifluoromethane	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
1,1-Dichloroethane	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
1,1-Dichloroethene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
1,2-Dichloropropane	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
1,3-Dichloropropane	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
2,2-Dichloropropane	ND	10		µg/L	5	3/21/2013 6:58:38 PM
1,1-Dichloropropene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
Hexachlorobutadiene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
2-Hexanone	ND	50		µg/L	5	3/21/2013 6:58:38 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303775

Date Reported: 4/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Pilot Eff

Project: 2013 1st Quarter

Collection Date: 3/19/2013 4:45:00 PM

Lab ID: 1303775-004

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Isopropylbenzene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
4-Isopropyltoluene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
4-Methyl-2-pentanone	ND	50		µg/L	5	3/21/2013 6:58:38 PM
Methylene Chloride	ND	15		µg/L	5	3/21/2013 6:58:38 PM
n-Butylbenzene	ND	15		µg/L	5	3/21/2013 6:58:38 PM
n-Propylbenzene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
sec-Butylbenzene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
Styrene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
tert-Butylbenzene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	3/21/2013 6:58:38 PM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
trans-1,2-DCE	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
Trichloroethene (TCE)	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
Trichlorofluoromethane	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
1,2,3-Trichloropropane	ND	10		µg/L	5	3/21/2013 6:58:38 PM
Vinyl chloride	ND	5.0		µg/L	5	3/21/2013 6:58:38 PM
Xylenes, Total	ND	7.5		µg/L	5	3/21/2013 6:58:38 PM
Surr: 1,2-Dichloroethane-d4	96.3	70-130		%REC	5	3/21/2013 6:58:38 PM
Surr: 4-Bromofluorobenzene	86.4	69.5-130		%REC	5	3/21/2013 6:58:38 PM
Surr: Dibromofluoromethane	85.6	70-130		%REC	5	3/21/2013 6:58:38 PM
Surr: Toluene-d8	90.1	70-130		%REC	5	3/21/2013 6:58:38 PM
EPA METHOD 410.1: COD						Analyst: SUB
Chemical Oxygen Demand	770	10		mg/L	1	3/22/2013

Qualifiers:

* Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 P Sample pH greater than 2
 RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303775

Date Reported: 4/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 1st Quarter

Collection Date: 3/19/2013 4:45:00 PM

Lab ID: 1303775-005

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
Toluene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
Ethylbenzene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
Naphthalene	ND	2.0		µg/L	1	3/21/2013 7:31:10 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/21/2013 7:31:10 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/21/2013 7:31:10 PM
Acetone	ND	10		µg/L	1	3/21/2013 7:31:10 PM
Bromobenzene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
Bromodichloromethane	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
Bromoform	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
Bromomethane	ND	3.0		µg/L	1	3/21/2013 7:31:10 PM
2-Butanone	ND	10		µg/L	1	3/21/2013 7:31:10 PM
Carbon disulfide	ND	10		µg/L	1	3/21/2013 7:31:10 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
Chlorobenzene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
Chloroethane	ND	2.0		µg/L	1	3/21/2013 7:31:10 PM
Chloroform	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
Chloromethane	ND	3.0		µg/L	1	3/21/2013 7:31:10 PM
2-Chlorotoluene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
4-Chlorotoluene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
cis-1,2-DCE	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/21/2013 7:31:10 PM
Dibromochloromethane	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
Dibromomethane	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	3/21/2013 7:31:10 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
2-Hexanone	ND	10		µg/L	1	3/21/2013 7:31:10 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303775

Date Reported: 4/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 1st Quarter

Collection Date: 3/19/2013 4:45:00 PM

Lab ID: 1303775-005

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Isopropylbenzene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	3/21/2013 7:31:10 PM
Methylene Chloride	ND	3.0		µg/L	1	3/21/2013 7:31:10 PM
n-Butylbenzene	ND	3.0		µg/L	1	3/21/2013 7:31:10 PM
n-Propylbenzene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
sec-Butylbenzene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
Styrene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
tert-Butylbenzene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/21/2013 7:31:10 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
trans-1,2-DCE	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/21/2013 7:31:10 PM
Vinyl chloride	ND	1.0		µg/L	1	3/21/2013 7:31:10 PM
Xylenes, Total	ND	1.5		µg/L	1	3/21/2013 7:31:10 PM
Surr: 1,2-Dichloroethane-d4	91.7	70-130		%REC	1	3/21/2013 7:31:10 PM
Surr: 4-Bromofluorobenzene	86.6	69.5-130		%REC	1	3/21/2013 7:31:10 PM
Surr: Dibromofluoromethane	84.1	70-130		%REC	1	3/21/2013 7:31:10 PM
Surr: Toluene-d8	94.0	70-130		%REC	1	3/21/2013 7:31:10 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 P Sample pH greater than 2
 RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R9390	RunNo:	9390					
Prep Date:	2/22/2013	Analysis Date:	3/25/2013	SeqNo:	268037	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R9390	RunNo:	9390					
Prep Date:		Analysis Date:	3/25/2013	SeqNo:	268038	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0	105	85	115			
Calcium	44	1.0	50.00	0	87.7	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.50	0.0060	0.5000	0	99.3	85	115			
Iron	0.49	0.020	0.5000	0	98.7	85	115			
Magnesium	44	1.0	50.00	0	87.5	85	115			
Manganese	0.49	0.0020	0.5000	0	98.8	85	115			
Silver	0.11	0.0050	0.1000	0	105	85	115			
Sodium	43	1.0	50.00	0	85.2	85	115			

Sample ID	1303586-001FMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R9390	RunNo:	9390					
Prep Date:		Analysis Date:	3/25/2013	SeqNo:	268084	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	280	5.0	250.0	41.28	97.0	70	130			
Magnesium	230	5.0	250.0	7.599	90.6	70	130			
Manganese	3.2	0.010	2.500	0.5462	106	70	130			

Sample ID	1303586-001FMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R9390	RunNo:	9390					
Prep Date:		Analysis Date:	3/25/2013	SeqNo:	268085	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	290	5.0	250.0	41.28	98.4	70	130	1.15	20	
Magnesium	240	5.0	250.0	7.599	91.6	70	130	1.05	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

RL Reporting Detection Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303586-001FMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R9390		RunNo: 9390					
Prep Date:			Analysis Date: 3/25/2013		SeqNo: 268085		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	3.2	0.010	2.500	0.5462	107	70	130	0.461	20	

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R9412			RunNo: 9412					
Prep Date:	2/22/2013	Analysis Date: 3/25/2013			SeqNo: 268665		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								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R9412		RunNo: 9412					
Prep Date:			Analysis Date: 3/25/2013		SeqNo: 268666		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0	94.8	85	115			
Cadmium	0.47	0.0020	0.5000	0	94.4	85	115			
Chromium	0.47	0.0060	0.5000	0	94.3	85	115			
Copper	0.46	0.0060	0.5000	0	92.1	85	115			
Iron	0.47	0.020	0.5000	0	94.9	85	115			
Lead	0.48	0.0050	0.5000	0	95.1	85	115			
Manganese	0.46	0.0020	0.5000	0	92.2	85	115			
Potassium	47	1.0	50.00	0	93.4	85	115			
Silver	0.097	0.0050	0.1000	0	96.9	85	115			
Zinc	0.47	0.010	0.5000	0	93.2	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

RL Reporting Detection Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303777-006FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268719		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.39	0.0020	0.5000	0	78.3	70	130			
Chromium	0.51	0.0060	0.5000	0.1315	76.5	70	130			
Copper	0.57	0.0060	0.5000	0.1646	81.2	70	130			
Silver	0.086	0.0050	0.1000	0	86.4	70	130			

Sample ID	1303777-006FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268720		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.39	0.0020	0.5000	0	78.8	70	130	0.619	20	
Chromium	0.51	0.0060	0.5000	0.1315	76.0	70	130	0.419	20	
Copper	0.57	0.0060	0.5000	0.1646	80.6	70	130	0.517	20	
Silver	0.086	0.0050	0.1000	0	85.6	70	130	0.942	20	

Sample ID	1303777-006FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268725		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.48	0.025	0.5000	0.09730	76.8	70	130			

Sample ID	1303777-006FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268726		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.50	0.025	0.5000	0.09730	81.3	70	130	4.56	20	

Sample ID	MB-6621		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268747		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								
Lead	ND	0.0050								
Manganese	ND	0.0020								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB-6621		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268747		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-6621		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268748		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.1	85	115			
Cadmium	0.49	0.0020	0.5000	0	97.4	85	115			
Chromium	0.49	0.0060	0.5000	0	97.5	85	115			
Copper	0.47	0.0060	0.5000	0	95.0	85	115			
Iron	0.50	0.020	0.5000	0	99.3	85	115			
Lead	0.49	0.0050	0.5000	0	98.4	85	115			
Manganese	0.48	0.0020	0.5000	0	95.2	85	115			
Silver	0.099	0.0050	0.1000	0	99.2	85	115			
Zinc	0.48	0.010	0.5000	0	96.1	85	115			

Sample ID	1303777-006FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 6621		RunNo: 9432					
Prep Date:	3/22/2013		Analysis Date: 3/26/2013		SeqNo: 269299		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	4.4	0.010	0.5000	3.849	103	70	130			
Zinc	1.5	0.050	0.5000	1.108	88.1	70	130			

Sample ID	1303777-006FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 6621		RunNo: 9432					
Prep Date:	3/22/2013		Analysis Date: 3/26/2013		SeqNo: 269300		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	4.4	0.010	0.5000	3.849	118	70	130	1.70	20	
Zinc	1.6	0.050	0.5000	1.108	93.3	70	130	1.68	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303777-007EMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R9334		RunNo: 9334					
Prep Date:			Analysis Date: 3/21/2013		SeqNo: 266100		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0010	0.02500	0.001577	108	70	130			
Selenium	0.030	0.0010	0.02500	0.003405	107	70	130			

Sample ID	1303779-001CMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R9334		RunNo: 9334					
Prep Date:			Analysis Date: 3/21/2013		SeqNo: 266102		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.003775	101	70	130			
Selenium	0.12	0.0050	0.1250	0.01323	88.1	70	130			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R9334		RunNo: 9334					
Prep Date:			Analysis Date: 3/21/2013		SeqNo: 266106		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.8	85	115			
Selenium	0.023	0.0010	0.02500	0	90.7	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R9334			RunNo: 9334					
Prep Date:		Analysis Date: 3/21/2013			SeqNo: 266107		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: R9420		RunNo: 9420					
Prep Date:			Analysis Date: 3/26/2013		SeqNo: 268976		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	102	85	115			
Selenium	0.025	0.0010	0.02500	0	99.5	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R9420		RunNo: 9420					
Prep Date:			Analysis Date: 3/26/2013		SeqNo: 268977		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	102	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

RL Reporting Detection Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R9420		RunNo: 9420					
Prep Date:			Analysis Date: 3/26/2013		SeqNo: 268977		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	99.0	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R9420			RunNo: 9420					
Prep Date:		Analysis Date: 3/26/2013			SeqNo: 268978		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals						
Client ID:	PBW	Batch ID: R9420		RunNo: 9420						
Prep Date:		Analysis Date: 3/26/2013		SeqNo: 268979		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: R9521		RunNo: 9521					
Prep Date:			Analysis Date: 3/29/2013		SeqNo: 271571		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	99.7	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R9521			RunNo: 9521					
Prep Date:		Analysis Date: 3/29/2013			SeqNo: 271572		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303774-006FLLMS	SampType:	MSLL			TestCode:	200.8 ICPMS Metals:Total				
Client ID:	BatchQC	Batch ID:	6621			RunNo:	9392				
Prep Date:	3/22/2013	Analysis Date:	3/25/2013			SeqNo:	268142	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.050	0.0025	0.05000	0.001132	98.2	70	130				
Selenium	0.056	0.0025	0.05000	0.009825	91.7	70	130				

Sample ID	1303784-001ALLMS	SampType:	MSLL			TestCode:	200.8 ICPMS Metals:Total				
Client ID:	BatchQC	Batch ID:	6621			RunNo:	9392				
Prep Date:	3/22/2013	Analysis Date:	3/25/2013			SeqNo:	268155	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.055	0.0025	0.05000	0.003289	104	70	130				

Sample ID	LLLCS-6621	SampType: LCSLL			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID: 6621			RunNo: 9392					
Prep Date:	3/22/2013	Analysis Date: 3/25/2013			SeqNo: 268160		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.052	0.0025	0.05000	0	103	85	115			
Selenium	0.054	0.0025	0.05000	0	108	85	115			

Sample ID	MB-6621	SampType: MBLK			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID: 6621			RunNo: 9392					
Prep Date:	3/22/2013	Analysis Date: 3/25/2013			SeqNo: 268164		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								

Sample ID	LLLCS-6621	SampType: LCSLL			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID: 6621			RunNo: 9456					
Prep Date:	3/22/2013	Analysis Date: 3/27/2013			SeqNo: 269950		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.051	0.0025	0.05000	0	101	85	115			

Sample ID	MB-6621	SampType: MBLK			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID: 6621			RunNo: 9456					
Prep Date:	3/22/2013	Analysis Date: 3/27/2013			SeqNo: 269952		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB-6600	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	6600	RunNo:	9353					
Prep Date:	3/21/2013	Analysis Date:	3/22/2013	SeqNo:	266679	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-6600	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	6600	RunNo:	9353					
Prep Date:	3/21/2013	Analysis Date:	3/22/2013	SeqNo:	266680	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0044	0.00020	0.005000	0	88.1	80	120			

Sample ID	1303594-007BMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	6600	RunNo:	9353					
Prep Date:	3/21/2013	Analysis Date:	3/22/2013	SeqNo:	266682	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0047	0.00020	0.005000	0	93.4	75	125			

Sample ID	1303594-007BMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	6600	RunNo:	9353					
Prep Date:	3/21/2013	Analysis Date:	3/22/2013	SeqNo:	266683	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0046	0.00020	0.005000	0	91.9	75	125	1.67	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R9347		RunNo: 9347							
Prep Date:	Analysis Date: 3/21/2013		SeqNo: 266524		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R9347		RunNo: 9347							
Prep Date:	Analysis Date: 3/21/2013		SeqNo: 266525		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			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	95.7	90	110			
Bromide	2.5	0.10	2.500	0	98.2	90	110			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90	110			
Phosphorus, Orthophosphate (As P)	5.2	0.50	5.000	0	104	90	110			
Sulfate	9.9	0.50	10.00	0	99.3	90	110			

Sample ID 1303776-001AMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R9347		RunNo: 9347							
Prep Date:	Analysis Date: 3/21/2013		SeqNo: 266541		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.6	0.10	0.5000	2.210	84.3	76.6	110			
Nitrogen, Nitrite (As N)	0.93	0.10	1.000	0	93.0	72.5	111			
Bromide	2.6	0.10	2.500	0.2123	95.1	83.3	107			
Nitrogen, Nitrate (As N)	5.3	0.10	2.500	2.584	108	90.4	113			
Phosphorus, Orthophosphate (As P)	4.9	0.50	5.000	0	98.6	74.5	115			

Sample ID 1303776-001AMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R9347		RunNo: 9347							
Prep Date:	Analysis Date: 3/21/2013		SeqNo: 266542		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.6	0.10	0.5000	2.210	85.9	76.6	110	0.296	20	
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	94.6	72.5	111	1.65	20	
Bromide	2.6	0.10	2.500	0.2123	96.8	83.3	107	1.68	20	
Nitrogen, Nitrate (As N)	5.3	0.10	2.500	2.584	110	90.4	113	0.815	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

RL Reporting Detection Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303776-001AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R9347	RunNo:	9347					
Prep Date:		Analysis Date:	3/21/2013	SeqNo:	266542	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	100	74.5	115	1.79	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB-6602	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	PBW	Batch ID:	6602	RunNo:	9345					
Prep Date:	3/21/2013	Analysis Date:	3/22/2013	SeqNo:	266495	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		105	75.4	146			

Sample ID	LCS-6602	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	LCSW	Batch ID:	6602	RunNo:	9345					
Prep Date:	3/21/2013	Analysis Date:	3/22/2013	SeqNo:	266496	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.2	1.0	5.000	0	84.9	64.4	132			
Surr: DNOP	0.45		0.5000		89.1	75.4	146			

Sample ID	LCSD-6602	SampType:	LCSD	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	LCSS02	Batch ID:	6602	RunNo:	9345					
Prep Date:	3/21/2013	Analysis Date:	3/22/2013	SeqNo:	266629	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.7	1.0	5.000	0	93.9	64.4	132			
Surr: DNOP	0.50		0.5000		101	75.4	146			

Sample ID	MB-6602	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	PBW	Batch ID:	6602	RunNo:	9344					
Prep Date:	3/21/2013	Analysis Date:	3/22/2013	SeqNo:	266700	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		107	75.4	146			

Sample ID	LCS-6602	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	LCSW	Batch ID:	6602	RunNo:	9344					
Prep Date:	3/21/2013	Analysis Date:	3/22/2013	SeqNo:	266702	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.8	1.0	5.000	0	95.5	64.4	132			
Surr: DNOP	0.51		0.5000		102	75.4	146			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup**Project:** 2013 1st Quarter

Sample ID	LCSD-6602		SampType: LCSD		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSS02		Batch ID: 6602		RunNo: 9344					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266746		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.9	1.0	5.000	0	98.4	64.4	132	3.05	20	
Surr: DNOP	0.53		0.5000		106	75.4	146	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBW	Batch ID:	R9380	RunNo:	9380					
Prep Date:		Analysis Date:	3/22/2013	SeqNo:	267641	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		84.3	51.9	148			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSW	Batch ID:	R9380	RunNo:	9380					
Prep Date:		Analysis Date:	3/22/2013	SeqNo:	267643	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.57	0.050	0.5000	0	114	73.2	124			
Surr: BFB	18		20.00		91.5	51.9	148			

Sample ID	1303779-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R9380	RunNo:	9380					
Prep Date:		Analysis Date:	3/22/2013	SeqNo:	267651	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	77	5.0	50.00	19.80	114	65.2	137			
Surr: BFB	1900		2000		95.3	51.9	148			

Sample ID	1303779-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R9380	RunNo:	9380					
Prep Date:		Analysis Date:	3/22/2013	SeqNo:	267652	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	72	5.0	50.00	19.80	103	65.2	137	7.07	20	
Surr: BFB	1900		2000		95.7	51.9	148	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R9336			RunNo: 9336					
Prep Date:		Analysis Date: 3/21/2013			SeqNo: 266044		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								
1,1-Dichloropropene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R9336			RunNo: 9336					
Prep Date:		Analysis Date: 3/21/2013			SeqNo: 266044		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.1	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.3	69.5	130			
Surr: Dibromofluoromethane	8.7		10.00		87.4	70	130			
Surr: Toluene-d8	9.7		10.00		97.3	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R9336			RunNo: 9336					
Prep Date:		Analysis Date: 3/21/2013			SeqNo: 266048		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.4	70	130			
Toluene	21	1.0	20.00	0	105	80	120			
Chlorobenzene	20	1.0	20.00	0	97.9	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	110	85.8	133			
Trichloroethene (TCE)	18	1.0	20.00	0	89.2	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

RL Reporting Detection Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	100ng lcs		SampType:	LCS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	LCSW		Batch ID:	R9336		RunNo:	9336			
Prep Date:			Analysis Date:	3/21/2013		SeqNo:	266048	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.4	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.3	69.5	130			
Surr: Dibromofluoromethane	9.0		10.00		90.1	70	130			
Surr: Toluene-d8	9.6		10.00		95.7	70	130			

Sample ID	1303775-001ams		SampType:	MS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	AL-2 To EP-1		Batch ID:	R9336		RunNo:	9336			
Prep Date:			Analysis Date:	3/21/2013		SeqNo:	266058	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	98	5.0	100.0	0	97.9	70	130			
Toluene	100	5.0	100.0	0	101	68.5	128			
Chlorobenzene	99	5.0	100.0	0	99.2	70	130			
1,1-Dichloroethene	110	5.0	100.0	0	106	70	130			
Trichloroethene (TCE)	86	5.0	100.0	0	86.3	61.3	102			
Surr: 1,2-Dichloroethane-d4	48		50.00		97.0	70	130			
Surr: 4-Bromofluorobenzene	44		50.00		87.5	69.5	130			
Surr: Dibromofluoromethane	44		50.00		88.6	70	130			
Surr: Toluene-d8	48		50.00		95.8	70	130			

Sample ID	1303775-001amsd		SampType:	MSD		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	AL-2 To EP-1		Batch ID:	R9336		RunNo:	9336			
Prep Date:			Analysis Date:	3/21/2013		SeqNo:	266067	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	96	5.0	100.0	0	95.9	70	130	2.06	20	
Toluene	98	5.0	100.0	0	97.7	68.5	128	3.22	20	
Chlorobenzene	93	5.0	100.0	0	92.7	70	130	6.79	20	
1,1-Dichloroethene	100	5.0	100.0	0	101	70	130	4.58	20	
Trichloroethene (TCE)	86	5.0	100.0	0	85.9	61.3	102	0.511	20	
Surr: 1,2-Dichloroethane-d4	51		50.00		102	70	130	0	0	
Surr: 4-Bromofluorobenzene	45		50.00		89.7	69.5	130	0	0	
Surr: Dibromofluoromethane	47		50.00		93.4	70	130	0	0	
Surr: Toluene-d8	51		50.00		102	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	mb-6595	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	6595	RunNo:	9393					
Prep Date:	3/21/2013	Analysis Date:	3/21/2013	SeqNo:	268168	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								
2,4-Dinitrotoluene	ND	10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	mb-6595	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	6595	RunNo:	9393					
Prep Date:	3/21/2013	Analysis Date:	3/21/2013	SeqNo:	268168	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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: 2,4,6-Tribromophenol	160		200.0		79.6	42.9	124			
Surr: 2-Fluorobiphenyl	76		100.0		75.8	40	108			
Surr: 2-Fluorophenol	110		200.0		53.1	23.6	94.8			
Surr: 4-Terphenyl-d14	90		100.0		90.3	41.9	103			
Surr: Nitrobenzene-d5	88		100.0		87.9	42.6	114			
Surr: Phenol-d5	78		200.0		38.9	20.3	74.7			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	Ics-6595	SampType: LCS			TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW	Batch ID: 6595			RunNo: 9393					
Prep Date:	3/21/2013	Analysis Date: 3/21/2013			SeqNo: 268169		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	68	10	100.0	0	68.3	43.3	92			
4-Chloro-3-methylphenol	150	10	200.0	0	74.1	46.3	108			
2-Chlorophenol	130	10	200.0	0	62.8	38	99.3			
1,4-Dichlorobenzene	58	10	100.0	0	57.6	30.8	80.6			
2,4-Dinitrotoluene	77	10	100.0	0	76.7	46.1	117			
N-Nitrosodi-n-propylamine	66	10	100.0	0	65.6	39.3	110			
4-Nitrophenol	69	10	200.0	0	34.4	29.8	67			
Pentachlorophenol	120	20	200.0	0	58.2	32.2	95.7			
Phenol	66	10	200.0	0	33.1	27	64.8			
Pyrene	71	10	100.0	0	70.6	44.7	97.3			
1,2,4-Trichlorobenzene	66	10	100.0	0	65.8	36.6	86.7			
Surr: 2,4,6-Tribromophenol	180		200.0		90.6	42.9	124			
Surr: 2-Fluorobiphenyl	69		100.0		69.2	40	108			
Surr: 2-Fluorophenol	100		200.0		51.7	23.6	94.8			
Surr: 4-Terphenyl-d14	88		100.0		88.1	41.9	103			
Surr: Nitrobenzene-d5	80		100.0		80.3	42.6	114			
Surr: Phenol-d5	74		200.0		37.2	20.3	74.7			

Sample ID	Icsd-6595		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 6595		RunNo: 9393					
Prep Date:	3/21/2013		Analysis Date: 3/21/2013		SeqNo: 268170		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	64	10	100.0	0	63.9	43.3	92	6.66	25	
4-Chloro-3-methylphenol	130	10	200.0	0	66.0	46.3	108	11.6	32.7	
2-Chlorophenol	120	10	200.0	0	61.0	38	99.3	2.91	20	
1,4-Dichlorobenzene	60	10	100.0	0	60.5	30.8	80.6	4.98	20	
2,4-Dinitrotoluene	72	10	100.0	0	72.2	46.1	117	6.02	29.9	
N-Nitrosodi-n-propylamine	69	10	100.0	0	69.1	39.3	110	5.20	23.1	
4-Nitrophenol	76	10	200.0	0	37.9	29.8	67	9.62	40.5	
Pentachlorophenol	110	20	200.0	0	52.9	32.2	95.7	9.67	37.3	
Phenol	74	10	200.0	0	37.2	27	64.8	11.7	20	
Pyrene	73	10	100.0	0	72.9	44.7	97.3	3.15	26.5	
1,2,4-Trichlorobenzene	65	10	100.0	0	64.8	36.6	86.7	1.53	27.2	
Surr: 2,4,6-Tribromophenol	170		200.0		85.5	42.9	124	0	0	
Surr: 2-Fluorobiphenyl	66		100.0		66.3	40	108	0	0	
Surr: 2-Fluorophenol	110		200.0		54.0	23.6	94.8	0	0	
Surr: 4-Terphenyl-d14	82		100.0		81.6	41.9	103	0	0	
Surr: Nitrobenzene-d5	76		100.0		75.5	42.6	114	0	0	
Surr: Phenol-d5	87		200.0		43.3	20.3	74.7	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB-R9508		SampType:	MBLK		TestCode:	SM5210B: BOD			
Client ID:	PBW		Batch ID:	R9508		RunNo:	9508			
Prep Date:			Analysis Date:	3/26/2013		SeqNo:	271423		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	LCS-R9508		SampType:	LCS		TestCode:	SM5210B: BOD			
Client ID:	LCSW		Batch ID:	R9508		RunNo:	9508			
Prep Date:			Analysis Date:	3/26/2013		SeqNo:	271424		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	220	2.0	198.0	0	109	84.6	115.4			

Sample ID	LCS-R9508		SampType:	LCS		TestCode:	SM5210B: BOD			
Client ID:	LCSW		Batch ID:	R9508		RunNo:	9508			
Prep Date:			Analysis Date:	3/26/2013		SeqNo:	271425		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	210	2.0	198.0	0	105	84.6	115.4			

Sample ID	LCS-R9508		SampType:	LCS		TestCode:	SM5210B: BOD			
Client ID:	LCSW		Batch ID:	R9508		RunNo:	9508			
Prep Date:			Analysis Date:	3/26/2013		SeqNo:	271426		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	200	2.0	198.0	0	102	84.6	115.4			

Sample ID	LCS-R9508		SampType:	LCS		TestCode:	SM5210B: BOD			
Client ID:	LCSW		Batch ID:	R9508		RunNo:	9508			
Prep Date:			Analysis Date:	3/26/2013		SeqNo:	271427		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	200	2.0	198.0	0	101	84.6	115.4			

Sample ID	LCS-R9508		SampType:	LCS		TestCode:	SM5210B: BOD			
Client ID:	LCSW		Batch ID:	R9508		RunNo:	9508			
Prep Date:			Analysis Date:	3/26/2013		SeqNo:	271428		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	240	2.0	198.0	0	124	84.6	115.4			S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	LCS-R9508		SampType: LCS		TestCode: SM5210B: BOD					
Client ID:	LCSW		Batch ID: R9508		RunNo: 9508					
Prep Date:			Analysis Date: 3/26/2013		SeqNo: 271429		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	230	2.0	198.0	0	114	84.6	115.4			

Sample ID	LCS-R9508		SampType: LCS		TestCode: SM5210B: BOD					
Client ID:	LCSW		Batch ID: R9508		RunNo: 9508					
Prep Date:			Analysis Date: 3/26/2013		SeqNo: 271430		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	220	2.0	198.0	0	113	84.6	115.4			

Sample ID	LCS-R9508		SampType: LCS		TestCode: SM5210B: BOD					
Client ID:	LCSW		Batch ID: R9508		RunNo: 9508					
Prep Date:			Analysis Date: 3/26/2013		SeqNo: 271431		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	220	2.0	198.0	0	109	84.6	115.4			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB-R9547		SampType: MBLK		TestCode: EPA Method 410.1: COD					
Client ID:	PBW		Batch ID: R9547		RunNo: 9547					
Prep Date:			Analysis Date: 3/22/2013		SeqNo: 272477		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	<10	10								

Sample ID	LCS-R9547		SampType: LCS		TestCode: EPA Method 410.1: COD					
Client ID:	LCSW		Batch ID: R9547		RunNo: 9547					
Prep Date:			Analysis Date: 3/22/2013		SeqNo: 272478		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	190	10	183.0	0	104	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303775

01-Apr-13

Client: Western Refining Southwest, Gallup**Project:** 2013 1st Quarter

Sample ID		1303753-001f dup		SampType: dup		TestCode: SM4500-H+B: pH				
Client ID:		BatchQC		Batch ID: R9316		RunNo: 9316				
Prep Date:				Analysis Date: 3/20/2013		SeqNo: 265836		Units: pH units		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.20	1.68								H

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1303775

RcptNo: 1

Received by/date: LM 03/20/13

Logged By: **Ashley Gallegos** 3/20/2013 12:15:00 PM

Completed By: **Ashley Gallegos** 3/20/2013 2:43:42 PM

Reviewed By: [Signature] 03/20/13

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☒
9. Was preservative added to bottles? Yes ☒ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(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: 02
(<2 or >12 unless noted)

Adjusted? [Signature]

Checked by: [Signature]

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

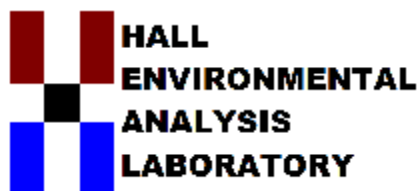
Regarding: _____

Client Instructions: _____

17. Additional remarks: -002F - HELD IN LOG/IN FOR 24 HOURS AFTER PRESERVATION

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.6	Good	Yes			



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

April 01, 2013

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 2013 1st Quarter

OrderNo.: 1303779

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 3/20/2013 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. 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. 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.

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 1303779

Date Reported: 4/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: West LDU

Project: 2013 1st Quarter

Collection Date: 3/18/2013 2:58:00 PM

Lab ID: 1303779-001

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: MMD
Diesel Range Organics (DRO)	2.6	1.0		mg/L	1	3/22/2013 11:19:18 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2013 11:19:18 AM
Surr: DNOP	117	75.4-146		%REC	1	3/22/2013 11:19:18 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	20	5.0		mg/L	100	3/22/2013 12:24:36 PM
Surr: BFB	88.1	51.9-148		%REC	100	3/22/2013 12:24:36 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	3/22/2013 12:24:36 PM
Benzene	3900	100		µg/L	100	3/22/2013 12:24:36 PM
Toluene	420	100		µg/L	100	3/22/2013 12:24:36 PM
Ethylbenzene	380	100		µg/L	100	3/22/2013 12:24:36 PM
Xylenes, Total	4000	200		µg/L	100	3/22/2013 12:24:36 PM
1,2,4-Trimethylbenzene	610	100		µg/L	100	3/22/2013 12:24:36 PM
1,3,5-Trimethylbenzene	210	100		µg/L	100	3/22/2013 12:24:36 PM
Surr: 4-Bromofluorobenzene	98.2	69.4-129		%REC	100	3/22/2013 12:24:36 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	0.13	0.0020		mg/L	1	3/22/2013 1:32:06 PM
Cadmium	ND	0.0020		mg/L	1	3/22/2013 1:32:06 PM
Chromium	0.040	0.0060		mg/L	1	3/22/2013 1:32:06 PM
Copper	ND	0.0060		mg/L	1	3/22/2013 1:32:06 PM
Iron	0.070	0.020		mg/L	1	3/22/2013 1:32:06 PM
Lead	ND	0.0050		mg/L	1	3/22/2013 1:32:06 PM
Manganese	0.31	0.0020	*	mg/L	1	3/22/2013 1:32:06 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 11:18:20 AM
Zinc	ND	0.010		mg/L	1	3/22/2013 1:32:06 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.15	0.0020		mg/L	1	3/25/2013 7:22:57 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 7:22:57 PM
Chromium	0.046	0.0060		mg/L	1	3/25/2013 7:22:57 PM
Copper	ND	0.0060		mg/L	1	3/25/2013 7:22:57 PM
Iron	0.71	0.020	*	mg/L	1	3/25/2013 7:22:57 PM
Lead	ND	0.0050		mg/L	1	3/25/2013 7:22:57 PM
Manganese	0.32	0.0020	*	mg/L	1	3/25/2013 7:22:57 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 7:22:57 PM
Zinc	0.026	0.010		mg/L	1	3/25/2013 7:22:57 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	3/21/2013 4:55:47 PM
Selenium	0.013	0.0050		mg/L	5	3/21/2013 4:55:47 PM
Uranium	ND	0.0050		mg/L	5	3/26/2013 12:45:27 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303779

Date Reported: 4/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: West LDU

Project: 2013 1st Quarter

Collection Date: 3/18/2013 2:58:00 PM

Lab ID: 1303779-001

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0036	0.0025		mg/L	2.5	3/25/2013 12:40:57 PM
Selenium	ND	0.0025		mg/L	2.5	3/25/2013 12:40:57 PM
Uranium	ND	0.0025		mg/L	2.5	3/27/2013 12:00:48 PM
EPA METHOD 245.1: MERCURY						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	3/25/2013 1:49:13 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303779

Date Reported: 4/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: East LDU

Project: 2013 1st Quarter

Collection Date: 3/18/2013 3:04:00 PM

Lab ID: 1303779-002

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: MMD
Diesel Range Organics (DRO)	28	1.0		mg/L	1	3/22/2013 11:40:58 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2013 11:40:58 AM
Surr: DNOP	133	75.4-146		%REC	1	3/22/2013 11:40:58 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	50	10		mg/L	200	3/22/2013 1:50:49 PM
Surr: BFB	87.0	51.9-148		%REC	200	3/22/2013 1:50:49 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	500		µg/L	200	3/22/2013 1:50:49 PM
Benzene	12000	200		µg/L	200	3/22/2013 1:50:49 PM
Toluene	4600	200		µg/L	200	3/22/2013 1:50:49 PM
Ethylbenzene	610	200		µg/L	200	3/22/2013 1:50:49 PM
Xylenes, Total	7000	400		µg/L	200	3/22/2013 1:50:49 PM
1,2,4-Trimethylbenzene	900	200		µg/L	200	3/22/2013 1:50:49 PM
1,3,5-Trimethylbenzene	290	200		µg/L	200	3/22/2013 1:50:49 PM
Surr: 4-Bromofluorobenzene	99.9	69.4-129		%REC	200	3/22/2013 1:50:49 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	0.45	0.0020		mg/L	1	3/22/2013 1:46:35 PM
Cadmium	ND	0.0020		mg/L	1	3/22/2013 1:46:35 PM
Chromium	0.77	0.0060	*	mg/L	1	3/22/2013 1:46:35 PM
Copper	ND	0.0060		mg/L	1	3/22/2013 1:46:35 PM
Iron	0.047	0.020		mg/L	1	3/22/2013 1:46:35 PM
Lead	0.0052	0.0050		mg/L	1	3/22/2013 1:46:35 PM
Manganese	0.62	0.0020	*	mg/L	1	3/22/2013 1:46:35 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 11:20:55 AM
Zinc	ND	0.010		mg/L	1	3/22/2013 1:46:35 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.48	0.0020		mg/L	1	3/25/2013 7:31:29 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 7:31:29 PM
Chromium	0.76	0.0060	*	mg/L	1	3/25/2013 7:31:29 PM
Copper	ND	0.0060		mg/L	1	3/25/2013 7:31:29 PM
Iron	0.090	0.020		mg/L	1	3/25/2013 7:31:29 PM
Lead	ND	0.0050		mg/L	1	3/25/2013 7:31:29 PM
Manganese	0.62	0.0020	*	mg/L	1	3/25/2013 7:31:29 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 7:31:29 PM
Zinc	ND	0.010		mg/L	1	3/25/2013 7:31:29 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0063	0.0010		mg/L	1	3/21/2013 5:03:20 PM
Selenium	0.0056	0.0010		mg/L	1	3/21/2013 5:03:20 PM
Uranium	ND	0.0010		mg/L	1	3/26/2013 1:00:37 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303779

Date Reported: 4/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: East LDU

Project: 2013 1st Quarter

Collection Date: 3/18/2013 3:04:00 PM

Lab ID: 1303779-002

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0059	0.0025		mg/L	2.5	3/25/2013 12:42:49 PM
Selenium	0.0027	0.0025		mg/L	2.5	3/25/2013 12:42:49 PM
Uranium	ND	0.0025		mg/L	2.5	3/27/2013 12:02:40 PM
EPA METHOD 245.1: MERCURY						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	3/25/2013 1:54:50 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303779

Date Reported: 4/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Oil Sump LDU

Project: 2013 1st Quarter

Collection Date: 3/18/2013 3:13:00 PM

Lab ID: 1303779-003

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: MMD
Diesel Range Organics (DRO)	20	1.0		mg/L	1	3/22/2013 12:02:43 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2013 12:02:43 PM
Surr: DNOP	128	75.4-146		%REC	1	3/22/2013 12:02:43 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	40	10		mg/L	200	3/22/2013 3:16:51 PM
Surr: BFB	85.9	51.9-148		%REC	200	3/22/2013 3:16:51 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	500		µg/L	200	3/22/2013 3:16:51 PM
Benzene	5100	200		µg/L	200	3/22/2013 3:16:51 PM
Toluene	8800	200		µg/L	200	3/22/2013 3:16:51 PM
Ethylbenzene	710	200		µg/L	200	3/22/2013 3:16:51 PM
Xylenes, Total	5500	400		µg/L	200	3/22/2013 3:16:51 PM
1,2,4-Trimethylbenzene	740	200		µg/L	200	3/22/2013 3:16:51 PM
1,3,5-Trimethylbenzene	230	200		µg/L	200	3/22/2013 3:16:51 PM
Surr: 4-Bromofluorobenzene	97.5	69.4-129		%REC	200	3/22/2013 3:16:51 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	0.29	0.0020		mg/L	1	3/22/2013 1:51:58 PM
Cadmium	ND	0.0020		mg/L	1	3/22/2013 1:51:58 PM
Chromium	0.10	0.0060	*	mg/L	1	3/22/2013 1:51:58 PM
Copper	ND	0.0060		mg/L	1	3/22/2013 1:51:58 PM
Iron	0.15	0.020		mg/L	1	3/22/2013 1:51:58 PM
Lead	ND	0.0050		mg/L	1	3/22/2013 1:51:58 PM
Manganese	1.1	0.010	*	mg/L	5	3/22/2013 2:02:08 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 5:23:22 PM
Zinc	0.026	0.010		mg/L	1	3/22/2013 1:51:58 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.33	0.0020		mg/L	1	3/25/2013 7:40:10 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 7:40:10 PM
Chromium	0.11	0.0060	*	mg/L	1	3/25/2013 7:40:10 PM
Copper	ND	0.0060		mg/L	1	3/25/2013 7:40:10 PM
Iron	0.61	0.020	*	mg/L	1	3/25/2013 7:40:10 PM
Lead	ND	0.0050		mg/L	1	3/25/2013 7:40:10 PM
Manganese	1.1	0.010	*	mg/L	5	3/25/2013 7:44:38 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 7:40:10 PM
Zinc	0.030	0.010		mg/L	1	3/25/2013 7:40:10 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.011	0.0050	*	mg/L	5	3/26/2013 1:13:52 PM
Selenium	0.013	0.0050		mg/L	5	3/26/2013 1:13:52 PM
Uranium	ND	0.050		mg/L	50	3/29/2013 2:44:55 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303779

Date Reported: 4/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Oil Sump LDU

Project: 2013 1st Quarter

Collection Date: 3/18/2013 3:13:00 PM

Lab ID: 1303779-003

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.018	0.0025	*	mg/L	2.5	3/25/2013 12:48:29 PM
Selenium	0.0049	0.0025		mg/L	2.5	3/25/2013 12:48:29 PM
Uranium	ND	0.0025		mg/L	2.5	3/27/2013 12:04:32 PM
EPA METHOD 245.1: MERCURY						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	3/25/2013 1:56:39 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303779

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R9363	RunNo:	9363					
Prep Date:	2/22/2013	Analysis Date:	3/22/2013	SeqNo:	266876	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								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R9363	RunNo:	9363					
Prep Date:		Analysis Date:	3/22/2013	SeqNo:	266877	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.6	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Chromium	0.52	0.0060	0.5000	0	103	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.48	0.020	0.5000	0	96.2	85	115			
Lead	0.51	0.0050	0.5000	0	101	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Zinc	0.51	0.010	0.5000	0	102	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R9390	RunNo:	9390					
Prep Date:	2/22/2013	Analysis Date:	3/25/2013	SeqNo:	268037	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R9390	RunNo:	9390					
Prep Date:		Analysis Date:	3/25/2013	SeqNo:	268038	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.11	0.0050	0.1000	0	105	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303779

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R9412	RunNo:	9412					
Prep Date:	2/22/2013	Analysis Date:	3/25/2013	SeqNo:	268665	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R9412	RunNo:	9412					
Prep Date:		Analysis Date:	3/25/2013	SeqNo:	268666	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.097	0.0050	0.1000	0	96.9	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303779

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303777-006FMS		SampType:	MS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	BatchQC		Batch ID:	6621		RunNo:	9412			
Prep Date:	3/22/2013		Analysis Date:	3/25/2013		SeqNo:	268719		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.39	0.0020	0.5000	0	78.3	70	130			
Chromium	0.51	0.0060	0.5000	0.1315	76.5	70	130			
Copper	0.57	0.0060	0.5000	0.1646	81.2	70	130			
Silver	0.086	0.0050	0.1000	0	86.4	70	130			

Sample ID	1303777-006FMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	BatchQC		Batch ID:	6621		RunNo:	9412			
Prep Date:	3/22/2013		Analysis Date:	3/25/2013		SeqNo:	268720		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.39	0.0020	0.5000	0	78.8	70	130	0.619	20	
Chromium	0.51	0.0060	0.5000	0.1315	76.0	70	130	0.419	20	
Copper	0.57	0.0060	0.5000	0.1646	80.6	70	130	0.517	20	
Silver	0.086	0.0050	0.1000	0	85.6	70	130	0.942	20	

Sample ID	1303777-006FMS		SampType:	MS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	BatchQC		Batch ID:	6621		RunNo:	9412			
Prep Date:	3/22/2013		Analysis Date:	3/25/2013		SeqNo:	268725		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.48	0.025	0.5000	0.09730	76.8	70	130			

Sample ID	1303777-006FMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	BatchQC		Batch ID:	6621		RunNo:	9412			
Prep Date:	3/22/2013		Analysis Date:	3/25/2013		SeqNo:	268726		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.50	0.025	0.5000	0.09730	81.3	70	130	4.56	20	

Sample ID	MB-6621		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	6621		RunNo:	9412			
Prep Date:	3/22/2013		Analysis Date:	3/25/2013		SeqNo:	268747		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								
Lead	ND	0.0050								
Manganese	ND	0.0020								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 P Sample pH greater than 2
 RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303779

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB-6621		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268747		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-6621		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268748		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.1	85	115			
Cadmium	0.49	0.0020	0.5000	0	97.4	85	115			
Chromium	0.49	0.0060	0.5000	0	97.5	85	115			
Copper	0.47	0.0060	0.5000	0	95.0	85	115			
Iron	0.50	0.020	0.5000	0	99.3	85	115			
Lead	0.49	0.0050	0.5000	0	98.4	85	115			
Manganese	0.48	0.0020	0.5000	0	95.2	85	115			
Silver	0.099	0.0050	0.1000	0	99.2	85	115			
Zinc	0.48	0.010	0.5000	0	96.1	85	115			

Sample ID	1303777-006FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 6621		RunNo: 9432					
Prep Date:	3/22/2013		Analysis Date: 3/26/2013		SeqNo: 269299		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	4.4	0.010	0.5000	3.849	103	70	130			
Zinc	1.5	0.050	0.5000	1.108	88.1	70	130			

Sample ID	1303777-006FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 6621		RunNo: 9432					
Prep Date:	3/22/2013		Analysis Date: 3/26/2013		SeqNo: 269300		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	4.4	0.010	0.5000	3.849	118	70	130	1.70	20	
Zinc	1.6	0.050	0.5000	1.108	93.3	70	130	1.68	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303779

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID 1303777-007EMS	SampType: MS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: R9334		RunNo: 9334							
Prep Date:	Analysis Date: 3/21/2013		SeqNo: 266100		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0010	0.02500	0.001577	108	70	130			
Selenium	0.030	0.0010	0.02500	0.003405	107	70	130			

Sample ID 1303779-001CMS	SampType: MS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: West LDU	Batch ID: R9334		RunNo: 9334							
Prep Date:	Analysis Date: 3/21/2013		SeqNo: 266102		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.003775	101	70	130			
Selenium	0.12	0.0050	0.1250	0.01323	88.1	70	130			

Sample ID LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: R9334		RunNo: 9334							
Prep Date:	Analysis Date: 3/21/2013		SeqNo: 266106		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.8	85	115			
Selenium	0.023	0.0010	0.02500	0	90.7	85	115			

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R9334		RunNo: 9334							
Prep Date:	Analysis Date: 3/21/2013		SeqNo: 266107		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: R9420		RunNo: 9420							
Prep Date:	Analysis Date: 3/26/2013		SeqNo: 268976		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	102	85	115			
Selenium	0.025	0.0010	0.02500	0	99.5	85	115			
Uranium	0.026	0.0010	0.02500	.00001518	102	85	115			

Sample ID LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: R9420		RunNo: 9420							
Prep Date:	Analysis Date: 3/26/2013		SeqNo: 268977		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 P Sample pH greater than 2
 RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303779

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R9420		RunNo: 9420					
Prep Date:			Analysis Date: 3/26/2013		SeqNo: 268977		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	102	85	115			
Selenium	0.025	0.0010	0.02500	0	99.0	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R9420			RunNo: 9420					
Prep Date:		Analysis Date: 3/26/2013			SeqNo: 268978		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R9420			RunNo: 9420					
Prep Date:		Analysis Date: 3/26/2013			SeqNo: 268979		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	1303779-001CMS		SampType: MS			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	West LDU		Batch ID: R9420			RunNo: 9420				
Prep Date:			Analysis Date: 3/26/2013			SeqNo: 269165		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.14	0.0050	0.1250	0.0004594	110	70	130			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R9521		RunNo: 9521					
Prep Date:			Analysis Date: 3/29/2013		SeqNo: 271571		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	99.7	85	115			

Sample ID	MB		SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	PBW		Batch ID: R9521			RunNo: 9521				
Prep Date:			Analysis Date: 3/29/2013			SeqNo: 271572		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303779

01-Apr-13

Client: Western Refining Southwest, Gallup**Project:** 2013 1st Quarter

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R9521	RunNo:	9521					
Prep Date:		Analysis Date:	3/29/2013	SeqNo:	271572	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303779

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303774-006FLLMS	SampType:	MSLL			TestCode:	200.8 ICPMS Metals:Total				
Client ID:	BatchQC	Batch ID:	6621			RunNo:	9392				
Prep Date:	3/22/2013	Analysis Date:	3/25/2013			SeqNo:	268142	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.050	0.0025	0.05000	0.001132	98.2	70	130				
Selenium	0.056	0.0025	0.05000	0.009825	91.7	70	130				

Sample ID	1303784-001ALLMS	SampType:	MSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	6621	RunNo:	9392					
Prep Date:	3/22/2013	Analysis Date:	3/25/2013	SeqNo:	268155	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.055	0.0025	0.05000	0.003289	104	70	130			

Sample ID	LLLCS-6621	SampType: LCSLL			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID: 6621			RunNo: 9392					
Prep Date:	3/22/2013	Analysis Date: 3/25/2013			SeqNo: 268160		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.052	0.0025	0.05000	0	103	85	115			
Selenium	0.054	0.0025	0.05000	0	108	85	115			

Sample ID	MB-6621	SampType: MBLK			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID: 6621			RunNo: 9392					
Prep Date:	3/22/2013	Analysis Date: 3/25/2013			SeqNo: 268164		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								

Sample ID	LLLCS-6621	SampType: LCSLL			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID: 6621			RunNo: 9456					
Prep Date:	3/22/2013	Analysis Date: 3/27/2013			SeqNo: 269950		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.051	0.0025	0.05000	0	101	85	115			

Sample ID	MB-6621	SampType: MBLK			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID: 6621			RunNo: 9456					
Prep Date:	3/22/2013	Analysis Date: 3/27/2013			SeqNo: 269952		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303779

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB-6630		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 6630		RunNo: 9403					
Prep Date:	3/25/2013		Analysis Date: 3/25/2013		SeqNo: 268428		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-6630		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 6630		RunNo: 9403					
Prep Date:	3/25/2013		Analysis Date: 3/25/2013		SeqNo: 268429		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	101	80	120			

Sample ID	1303636-004AMS		SampType: MS		TestCode: EPA Method 245.1: Mercury					
Client ID:	BatchQC		Batch ID: 6630		RunNo: 9403					
Prep Date:	3/25/2013		Analysis Date: 3/25/2013		SeqNo: 268432		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	75	125			

Sample ID	1303636-004AMSD			SampType:	MSD		TestCode:	EPA Method 245.1: Mercury			
Client ID:	BatchQC			Batch ID:	6630		RunNo:	9403			
Prep Date:	3/25/2013			Analysis Date:	3/25/2013		SeqNo:	268434		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	99.6	75	125	2.21	20		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303779

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB-6602		SampType: MBLK		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	PBW		Batch ID: 6602		RunNo: 9345					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266495		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		105	75.4	146			

Sample ID	LCS-6602		SampType: LCS		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSW		Batch ID: 6602		RunNo: 9345					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266496		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.2	1.0	5.000	0	84.9	64.4	132			
Surr: DNOP	0.45		0.5000		89.1	75.4	146			

Sample ID	LCSD-6602		SampType: LCSD		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSS02		Batch ID: 6602		RunNo: 9345					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266629		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.7	1.0	5.000	0	93.9	64.4	132			
Surr: DNOP	0.50		0.5000		101	75.4	146			

Sample ID	MB-6602		SampType: MBLK		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	PBW		Batch ID: 6602		RunNo: 9344					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266700		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		107	75.4	146			

Sample ID	LCS-6602		SampType: LCS		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSW		Batch ID: 6602		RunNo: 9344					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266702		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.8	1.0	5.000	0	95.5	64.4	132			
Surr: DNOP	0.51		0.5000		102	75.4	146			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303779

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	LCSD-6602		SampType: LCSD		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSS02		Batch ID: 6602		RunNo: 9344					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266746		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.9	1.0	5.000	0	98.4	64.4	132	3.05	20	
Surr: DNOP	0.53		0.5000		106	75.4	146	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303779

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	5ML RB		SampType: MBLK		TestCode: EPA Method 8015B: Gasoline Range					
Client ID:	PBW		Batch ID: R9380		RunNo: 9380					
Prep Date:			Analysis Date: 3/22/2013		SeqNo: 267641		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		84.3	51.9	148			

Sample ID	2.5UG GRO LCS	SampType: LCS			TestCode: EPA Method 8015B: Gasoline Range					
Client ID:	LCSW	Batch ID: R9380			RunNo: 9380					
Prep Date:		Analysis Date: 3/22/2013			SeqNo: 267643		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.57	0.050	0.5000	0	114	73.2	124			
Surr: BFB	18		20.00		91.5	51.9	148			

Sample ID	1303779-001AMS		SampType: MS		TestCode: EPA Method 8015B: Gasoline Range					
Client ID:	West LDU		Batch ID: R9380		RunNo: 9380					
Prep Date:			Analysis Date: 3/22/2013		SeqNo: 267651		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	77	5.0	50.00	19.80	114	65.2	137			
Surr: BFB	1900		2000		95.3	51.9	148			

Sample ID	1303779-001AMSD		SampType: MSD		TestCode: EPA Method 8015B: Gasoline Range					
Client ID:	West LDU		Batch ID: R9380		RunNo: 9380					
Prep Date:			Analysis Date: 3/22/2013		SeqNo: 267652		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	72	5.0	50.00	19.80	103	65.2	137	7.07	20	
Surr: BFB	1900		2000		95.7	51.9	148	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303779

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID: R9380			RunNo: 9380					
Prep Date:		Analysis Date: 3/22/2013			SeqNo: 267691		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	19		20.00		93.8	69.4	129			

Sample ID	100NG BTEX LCS		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSW		Batch ID: R9380		RunNo: 9380					
Prep Date:			Analysis Date: 3/22/2013		SeqNo: 267692		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	21	2.5	20.00	0	106	76.9	115			
Benzene	21	1.0	20.00	0	103	80	120			
Toluene	21	1.0	20.00	0	106	80	120			
Ethylbenzene	21	1.0	20.00	0	106	80	120			
Xylenes, Total	64	2.0	60.00	0	106	80	120			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	104	80	120			
1,3,5-Trimethylbenzene	21	1.0	20.00	0	103	80	120			
Surr: 4-Bromofluorobenzene	20		20.00		98.7	69.4	129			

Sample ID	1303779-002AMS		SampType: MS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	East LDU		Batch ID: R9380		RunNo: 9380					
Prep Date:			Analysis Date: 3/22/2013		SeqNo: 267704		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	3900	500	4000	0	96.9	65.6	125			
Benzene	16000	200	4000	12020	89.5	80	120			
Toluene	8600	200	4000	4644	100	80	120			
Ethylbenzene	4700	200	4000	606.6	101	80	120			
Xylenes, Total	19000	400	12000	6963	101	80	120			
1,2,4-Trimethylbenzene	5000	200	4000	900.1	102	74	128			
1,3,5-Trimethylbenzene	4300	200	4000	288.8	101	75.5	130			
Surr: 4-Bromofluorobenzene	4100		4000		102	69.4	129			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303779

01-Apr-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303779-002AMSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles					
Client ID:	East LDU		Batch ID: R9380		RunNo: 9380					
Prep Date:			Analysis Date: 3/22/2013		SeqNo: 267705		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	3600	500	4000	0	90.1	65.6	125	7.31	20	
Benzene	15000	200	4000	12020	85.9	80	120	0.905	20	
Toluene	8500	200	4000	4644	96.1	80	120	1.86	20	
Ethylbenzene	4600	200	4000	606.6	99.2	80	120	1.80	20	
Xylenes, Total	19000	400	12000	6963	96.9	80	120	2.87	20	
1,2,4-Trimethylbenzene	4700	200	4000	900.1	95.0	74	128	5.43	20	
1,3,5-Trimethylbenzene	4200	200	4000	288.8	96.9	75.5	130	4.04	20	
Surr: 4-Bromofluorobenzene	4000		4000		99.9	69.4	129	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1303779

RcptNo: 1

Received by/date:

LM 03/20/13

Logged By:

Ashley Gallegos

3/20/2013 12:15:00 PM

Completed By:

Ashley Gallegos

3/20/2013 3:37:22 PM

Reviewed By:

[Signature]

03/20/13

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Client

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of >0° C to 6.0° C

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☒

No ☐

No VOA Vials ☐

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

Adjusted?

Checked by:

Special Handling (if applicable)

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

Yes ☐

No ☐

NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

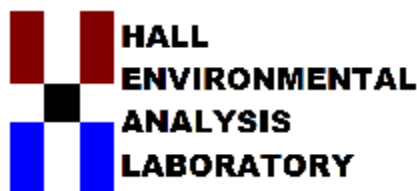
Client Instructions:

17. Additional remarks:

-002D, -002D, -001D - Held in LOGAN FOR 24 HOURS AFTER pH

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.6	Good	Yes			



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

March 28, 2013

Cheryl Johnson
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2013 1st Quarter

OrderNo.: 1303777

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 9 sample(s) on 3/20/2013 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. 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. 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.

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 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 1st Quarter

Collection Date: 3/18/2013 10:37:00 AM

Lab ID: 1303777-001

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: MMD
Diesel Range Organics (DRO)	6.0	1.0		mg/L	1	3/22/2013 3:43:47 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2013 3:43:47 PM
Surr: DNOP	125	75.4-146		%REC	1	3/22/2013 3:43:47 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	0.48	0.25		mg/L	5	3/22/2013 6:08:41 PM
Surr: BFB	102	51.9-148		%REC	5	3/22/2013 6:08:41 PM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	1.8	0.50		mg/L	5	3/21/2013 9:52:17 PM
Chloride	1600	100		mg/L	200	3/22/2013 9:02:53 PM
Bromide	4.6	0.50		mg/L	5	3/21/2013 9:52:17 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	3/21/2013 9:52:17 PM
Sulfate	65	2.5		mg/L	5	3/21/2013 9:52:17 PM
Nitrate+Nitrite as N	ND	2.0		mg/L	10	3/27/2013 9:55:21 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	0.44	0.0020		mg/L	1	3/22/2013 2:08:23 PM
Cadmium	ND	0.0020		mg/L	1	3/22/2013 2:08:23 PM
Calcium	120	5.0		mg/L	5	3/22/2013 2:10:58 PM
Chromium	ND	0.0060		mg/L	1	3/22/2013 2:08:23 PM
Copper	ND	0.0060		mg/L	1	3/22/2013 2:08:23 PM
Iron	1.8	0.10	*	mg/L	5	3/22/2013 2:10:58 PM
Lead	0.0063	0.0050		mg/L	1	3/22/2013 2:08:23 PM
Magnesium	24	1.0		mg/L	1	3/22/2013 2:08:23 PM
Manganese	1.9	0.010	*	mg/L	5	3/22/2013 2:10:58 PM
Potassium	6.9	1.0		mg/L	1	3/22/2013 2:08:23 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 11:26:18 AM
Sodium	1100	50		mg/L	50	3/25/2013 11:34:55 AM
Zinc	0.046	0.010		mg/L	1	3/22/2013 2:08:23 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.61	0.0020		mg/L	1	3/25/2013 7:48:56 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 7:48:56 PM
Chromium	0.010	0.0060		mg/L	1	3/25/2013 7:48:56 PM
Copper	0.026	0.0060		mg/L	1	3/25/2013 7:48:56 PM
Iron	7.9	0.20	*	mg/L	10	3/26/2013 3:01:04 PM
Lead	0.0085	0.0050		mg/L	1	3/25/2013 7:48:56 PM
Manganese	2.1	0.010	*	mg/L	5	3/25/2013 7:52:37 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 7:48:56 PM
Zinc	0.062	0.010		mg/L	1	3/25/2013 7:48:56 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0074	0.0050		mg/L	5	3/27/2013 4:10:27 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 1st Quarter

Collection Date: 3/18/2013 10:37:00 AM

Lab ID: 1303777-001

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Selenium	0.0094	0.0050		mg/L	5	3/27/2013 4:10:27 PM
Uranium	0.062	0.0050	*	mg/L	5	3/27/2013 4:10:27 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0082	0.0025		mg/L	2.5	3/25/2013 12:50:21 PM
Selenium	0.0075	0.0025		mg/L	2.5	3/25/2013 12:50:21 PM
Uranium	0.065	0.0025	*	mg/L	2.5	3/27/2013 12:06:24 PM
EPA METHOD 245.1: MERCURY						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	3/22/2013 10:17:20 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Acenaphthylene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Aniline	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Anthracene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Azobenzene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Benz(a)anthracene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Benzo(a)pyrene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Benzoic acid	ND	20		µg/L	1	3/21/2013 7:20:45 PM
Benzyl alcohol	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	3/21/2013 7:20:45 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Butyl benzyl phthalate	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Carbazole	ND	10		µg/L	1	3/21/2013 7:20:45 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	3/21/2013 7:20:45 PM
4-Chloroaniline	ND	10		µg/L	1	3/21/2013 7:20:45 PM
2-Chloronaphthalene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
2-Chlorophenol	ND	10		µg/L	1	3/21/2013 7:20:45 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Chrysene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Di-n-butyl phthalate	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Di-n-octyl phthalate	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Dibenzofuran	ND	10		µg/L	1	3/21/2013 7:20:45 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	3/21/2013 7:20:45 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 1st Quarter

Collection Date: 3/18/2013 10:37:00 AM

Lab ID: 1303777-001

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
1,4-Dichlorobenzene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Diethyl phthalate	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Dimethyl phthalate	ND	10		µg/L	1	3/21/2013 7:20:45 PM
2,4-Dichlorophenol	ND	20		µg/L	1	3/21/2013 7:20:45 PM
2,4-Dimethylphenol	ND	10		µg/L	1	3/21/2013 7:20:45 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	3/21/2013 7:20:45 PM
2,4-Dinitrophenol	ND	20		µg/L	1	3/21/2013 7:20:45 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Fluoranthene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Fluorene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Hexachlorobenzene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Hexachlorobutadiene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Hexachloroethane	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Isophorone	ND	10		µg/L	1	3/21/2013 7:20:45 PM
1-Methylnaphthalene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
2-Methylnaphthalene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
2-Methylphenol	ND	10		µg/L	1	3/21/2013 7:20:45 PM
3+4-Methylphenol	ND	10		µg/L	1	3/21/2013 7:20:45 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/21/2013 7:20:45 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	3/21/2013 7:20:45 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Naphthalene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
2-Nitroaniline	ND	10		µg/L	1	3/21/2013 7:20:45 PM
3-Nitroaniline	ND	10		µg/L	1	3/21/2013 7:20:45 PM
4-Nitroaniline	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Nitrobenzene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
2-Nitrophenol	ND	10		µg/L	1	3/21/2013 7:20:45 PM
4-Nitrophenol	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Pentachlorophenol	ND	20		µg/L	1	3/21/2013 7:20:45 PM
Phenanthrene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Phenol	10	10		µg/L	1	3/21/2013 7:20:45 PM
Pyrene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Pyridine	ND	10		µg/L	1	3/21/2013 7:20:45 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/21/2013 7:20:45 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/21/2013 7:20:45 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	3/21/2013 7:20:45 PM
Surr: 2,4,6-Tribromophenol	54.9	42.9-124		%REC	1	3/21/2013 7:20:45 PM
Surr: 2-Fluorobiphenyl	37.4	40-108	S	%REC	1	3/21/2013 7:20:45 PM

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- RL Reporting Detection Limit

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 1st Quarter

Collection Date: 3/18/2013 10:37:00 AM

Lab ID: 1303777-001

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Surr: 2-Fluorophenol	25.7	23.6-94.8		%REC	1	3/21/2013 7:20:45 PM
Surr: 4-Terphenyl-d14	55.4	41.9-103		%REC	1	3/21/2013 7:20:45 PM
Surr: Nitrobenzene-d5	36.5	42.6-114	S	%REC	1	3/21/2013 7:20:45 PM
Surr: Phenol-d5	21.6	20.3-74.7		%REC	1	3/21/2013 7:20:45 PM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	27	5.0		µg/L	5	3/21/2013 8:03:33 PM
Toluene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
Ethylbenzene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
Methyl tert-butyl ether (MTBE)	420	5.0		µg/L	5	3/21/2013 8:03:33 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
Naphthalene	ND	10		µg/L	5	3/21/2013 8:03:33 PM
1-Methylnaphthalene	ND	20		µg/L	5	3/21/2013 8:03:33 PM
2-Methylnaphthalene	ND	20		µg/L	5	3/21/2013 8:03:33 PM
Acetone	ND	50		µg/L	5	3/21/2013 8:03:33 PM
Bromobenzene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
Bromodichloromethane	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
Bromoform	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
Bromomethane	ND	15		µg/L	5	3/21/2013 8:03:33 PM
2-Butanone	ND	50		µg/L	5	3/21/2013 8:03:33 PM
Carbon disulfide	ND	50		µg/L	5	3/21/2013 8:03:33 PM
Carbon Tetrachloride	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
Chlorobenzene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
Chloroethane	ND	10		µg/L	5	3/21/2013 8:03:33 PM
Chloroform	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
Chloromethane	ND	15		µg/L	5	3/21/2013 8:03:33 PM
2-Chlorotoluene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
4-Chlorotoluene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
cis-1,2-DCE	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	3/21/2013 8:03:33 PM
Dibromochloromethane	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
Dibromomethane	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
Dichlorodifluoromethane	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
1,1-Dichloroethane	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
1,1-Dichloroethene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM

Qualifiers:

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- E Value above quantitation range
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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 1st Quarter

Collection Date: 3/18/2013 10:37:00 AM

Lab ID: 1303777-001

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
1,2-Dichloropropane	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
1,3-Dichloropropane	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
2,2-Dichloropropane	ND	10		µg/L	5	3/21/2013 8:03:33 PM
1,1-Dichloropropene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
Hexachlorobutadiene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
2-Hexanone	ND	50		µg/L	5	3/21/2013 8:03:33 PM
Isopropylbenzene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
4-Isopropyltoluene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
4-Methyl-2-pentanone	ND	50		µg/L	5	3/21/2013 8:03:33 PM
Methylene Chloride	ND	15		µg/L	5	3/21/2013 8:03:33 PM
n-Butylbenzene	ND	15		µg/L	5	3/21/2013 8:03:33 PM
n-Propylbenzene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
sec-Butylbenzene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
Styrene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
tert-Butylbenzene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	3/21/2013 8:03:33 PM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
trans-1,2-DCE	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
Trichloroethene (TCE)	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
Trichlorofluoromethane	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
1,2,3-Trichloropropane	ND	10		µg/L	5	3/21/2013 8:03:33 PM
Vinyl chloride	ND	5.0		µg/L	5	3/21/2013 8:03:33 PM
Xylenes, Total	ND	7.5		µg/L	5	3/21/2013 8:03:33 PM
Surr: 1,2-Dichloroethane-d4	99.4	70-130		%REC	5	3/21/2013 8:03:33 PM
Surr: 4-Bromofluorobenzene	84.6	69.5-130		%REC	5	3/21/2013 8:03:33 PM
Surr: Dibromofluoromethane	88.2	70-130		%REC	5	3/21/2013 8:03:33 PM
Surr: Toluene-d8	92.0	70-130		%REC	5	3/21/2013 8:03:33 PM

Qualifiers:

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: 2013 1st Quarter

Collection Date: 3/18/2013 11:18:00 AM

Lab ID: 1303777-002

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: MMD
Diesel Range Organics (DRO)	5.3	1.0		mg/L	1	3/22/2013 4:05:28 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2013 4:05:28 PM
Surr: DNOP	133	75.4-146		%REC	1	3/22/2013 4:05:28 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	0.57	0.25		mg/L	5	3/22/2013 6:37:21 PM
Surr: BFB	242	51.9-148	S	%REC	5	3/22/2013 6:37:21 PM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	2.7	0.50		mg/L	5	3/21/2013 10:17:07 PM
Chloride	1000	50		mg/L	100	3/22/2013 9:15:17 PM
Bromide	2.4	0.50		mg/L	5	3/21/2013 10:17:07 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	3/21/2013 10:17:07 PM
Sulfate	94	2.5		mg/L	5	3/21/2013 10:17:07 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	3/22/2013 2:37:49 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	0.83	0.0020		mg/L	1	3/22/2013 2:13:14 PM
Cadmium	ND	0.0020		mg/L	1	3/22/2013 2:13:14 PM
Calcium	260	5.0		mg/L	5	3/22/2013 2:27:36 PM
Chromium	ND	0.0060		mg/L	1	3/22/2013 2:13:14 PM
Copper	ND	0.0060		mg/L	1	3/22/2013 2:13:14 PM
Iron	6.0	0.20	*	mg/L	10	3/25/2013 11:55:17 AM
Lead	0.0060	0.0050		mg/L	1	3/22/2013 2:13:14 PM
Magnesium	65	1.0		mg/L	1	3/22/2013 2:13:14 PM
Manganese	2.8	0.010	*	mg/L	5	3/22/2013 2:27:36 PM
Potassium	3.7	1.0		mg/L	1	3/22/2013 2:13:14 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 11:37:27 AM
Sodium	860	10		mg/L	10	3/25/2013 11:55:17 AM
Zinc	0.013	0.010		mg/L	1	3/22/2013 2:13:14 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.88	0.0020		mg/L	1	3/25/2013 8:08:09 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 8:08:09 PM
Chromium	ND	0.0060		mg/L	1	3/25/2013 8:08:09 PM
Copper	ND	0.0060		mg/L	1	3/25/2013 8:08:09 PM
Iron	8.0	0.20	*	mg/L	10	3/26/2013 3:05:11 PM
Lead	0.0059	0.0050		mg/L	1	3/25/2013 8:08:09 PM
Manganese	2.9	0.010	*	mg/L	5	3/25/2013 8:11:48 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 8:08:09 PM
Zinc	0.012	0.010		mg/L	1	3/25/2013 8:08:09 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.11	0.0050	*	mg/L	5	3/27/2013 4:12:19 PM

Qualifiers:

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- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: 2013 1st Quarter

Collection Date: 3/18/2013 11:18:00 AM

Lab ID: 1303777-002

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Selenium	ND	0.0050		mg/L	5	3/27/2013 4:12:19 PM
Uranium	0.0050	0.0050		mg/L	5	3/27/2013 4:12:19 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.12	0.0025	*	mg/L	2.5	3/25/2013 12:52:13 PM
Selenium	0.0039	0.0025		mg/L	2.5	3/25/2013 12:52:13 PM
Uranium	0.0055	0.0025		mg/L	2.5	3/27/2013 12:08:16 PM
EPA METHOD 245.1: MERCURY						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	3/25/2013 1:45:37 PM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	9.8	5.0		µg/L	5	3/21/2013 8:35:47 PM
Toluene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
Ethylbenzene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
Methyl tert-butyl ether (MTBE)	43	5.0		µg/L	5	3/21/2013 8:35:47 PM
1,2,4-Trimethylbenzene	19	5.0		µg/L	5	3/21/2013 8:35:47 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
Naphthalene	ND	10		µg/L	5	3/21/2013 8:35:47 PM
1-Methylnaphthalene	ND	20		µg/L	5	3/21/2013 8:35:47 PM
2-Methylnaphthalene	ND	20		µg/L	5	3/21/2013 8:35:47 PM
Acetone	ND	50		µg/L	5	3/21/2013 8:35:47 PM
Bromobenzene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
Bromodichloromethane	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
Bromoform	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
Bromomethane	ND	15		µg/L	5	3/21/2013 8:35:47 PM
2-Butanone	ND	50		µg/L	5	3/21/2013 8:35:47 PM
Carbon disulfide	ND	50		µg/L	5	3/21/2013 8:35:47 PM
Carbon Tetrachloride	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
Chlorobenzene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
Chloroethane	ND	10		µg/L	5	3/21/2013 8:35:47 PM
Chloroform	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
Chloromethane	ND	15		µg/L	5	3/21/2013 8:35:47 PM
2-Chlorotoluene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
4-Chlorotoluene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
cis-1,2-DCE	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	3/21/2013 8:35:47 PM
Dibromochloromethane	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
Dibromomethane	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: 2013 1st Quarter

Collection Date: 3/18/2013 11:18:00 AM

Lab ID: 1303777-002

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
1,3-Dichlorobenzene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
Dichlorodifluoromethane	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
1,1-Dichloroethane	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
1,1-Dichloroethene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
1,2-Dichloropropane	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
1,3-Dichloropropane	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
2,2-Dichloropropane	ND	10		µg/L	5	3/21/2013 8:35:47 PM
1,1-Dichloropropene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
Hexachlorobutadiene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
2-Hexanone	ND	50		µg/L	5	3/21/2013 8:35:47 PM
Isopropylbenzene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
4-Isopropyltoluene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
4-Methyl-2-pentanone	ND	50		µg/L	5	3/21/2013 8:35:47 PM
Methylene Chloride	ND	15		µg/L	5	3/21/2013 8:35:47 PM
n-Butylbenzene	ND	15		µg/L	5	3/21/2013 8:35:47 PM
n-Propylbenzene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
sec-Butylbenzene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
Styrene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
tert-Butylbenzene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	3/21/2013 8:35:47 PM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
trans-1,2-DCE	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
Trichloroethene (TCE)	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
Trichlorofluoromethane	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
1,2,3-Trichloropropane	ND	10		µg/L	5	3/21/2013 8:35:47 PM
Vinyl chloride	ND	5.0		µg/L	5	3/21/2013 8:35:47 PM
Xylenes, Total	18	7.5		µg/L	5	3/21/2013 8:35:47 PM
Surr: 1,2-Dichloroethane-d4	98.2	70-130		%REC	5	3/21/2013 8:35:47 PM
Surr: 4-Bromofluorobenzene	90.2	69.5-130		%REC	5	3/21/2013 8:35:47 PM
Surr: Dibromofluoromethane	86.6	70-130		%REC	5	3/21/2013 8:35:47 PM
Surr: Toluene-d8	73.8	70-130		%REC	5	3/21/2013 8:35:47 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-2

Project: 2013 1st Quarter

Collection Date: 3/18/2013 11:24:00 AM

Lab ID: 1303777-003

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: MMD
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/22/2013 4:49:25 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2013 4:49:25 PM
Surr: DNOP	128	75.4-146		%REC	1	3/22/2013 4:49:25 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	0.052	0.050		mg/L	1	3/22/2013 7:06:00 PM
Surr: BFB	150	51.9-148	S	%REC	1	3/22/2013 7:06:00 PM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	1.6	0.50		mg/L	5	3/21/2013 10:41:57 PM
Chloride	1100	50		mg/L	100	3/22/2013 9:27:42 PM
Bromide	3.8	0.50		mg/L	5	3/21/2013 10:41:57 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	3/21/2013 10:41:57 PM
Sulfate	1300	50		mg/L	100	3/22/2013 9:27:42 PM
Nitrate+Nitrite as N	ND	2.0		mg/L	10	3/22/2013 9:52:32 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Calcium	420	50		mg/L	50	3/25/2013 11:57:24 AM
Magnesium	72	1.0		mg/L	1	3/22/2013 2:29:56 PM
Potassium	4.5	1.0		mg/L	1	3/22/2013 2:29:56 PM
Sodium	1100	50		mg/L	50	3/25/2013 11:57:24 AM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
Toluene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
Ethylbenzene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
Methyl tert-butyl ether (MTBE)	2.0	1.0		µg/L	1	3/22/2013 12:39:53 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
Naphthalene	ND	2.0		µg/L	1	3/22/2013 12:39:53 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/22/2013 12:39:53 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/22/2013 12:39:53 PM
Acetone	ND	10		µg/L	1	3/22/2013 12:39:53 PM
Bromobenzene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
Bromodichloromethane	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
Bromoform	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
Bromomethane	ND	3.0		µg/L	1	3/22/2013 12:39:53 PM
2-Butanone	ND	10		µg/L	1	3/22/2013 12:39:53 PM
Carbon disulfide	ND	10		µg/L	1	3/22/2013 12:39:53 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
Chlorobenzene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
Chloroethane	ND	2.0		µg/L	1	3/22/2013 12:39:53 PM

Qualifiers:

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-2

Project: 2013 1st Quarter

Collection Date: 3/18/2013 11:24:00 AM

Lab ID: 1303777-003

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Chloroform	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
Chloromethane	ND	3.0		µg/L	1	3/22/2013 12:39:53 PM
2-Chlorotoluene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
4-Chlorotoluene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
cis-1,2-DCE	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/22/2013 12:39:53 PM
Dibromochloromethane	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
Dibromomethane	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	3/22/2013 12:39:53 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
2-Hexanone	ND	10		µg/L	1	3/22/2013 12:39:53 PM
Isopropylbenzene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	3/22/2013 12:39:53 PM
Methylene Chloride	ND	3.0		µg/L	1	3/22/2013 12:39:53 PM
n-Butylbenzene	ND	3.0		µg/L	1	3/22/2013 12:39:53 PM
n-Propylbenzene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
sec-Butylbenzene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
Styrene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
tert-Butylbenzene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/22/2013 12:39:53 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
trans-1,2-DCE	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/22/2013 12:39:53 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-2

Project: 2013 1st Quarter

Collection Date: 3/18/2013 11:24:00 AM

Lab ID: 1303777-003

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Vinyl chloride	ND	1.0		µg/L	1	3/22/2013 12:39:53 PM
Xylenes, Total	ND	1.5		µg/L	1	3/22/2013 12:39:53 PM
Surr: 1,2-Dichloroethane-d4	94.5	70-130		%REC	1	3/22/2013 12:39:53 PM
Surr: 4-Bromofluorobenzene	95.4	69.5-130		%REC	1	3/22/2013 12:39:53 PM
Surr: Dibromofluoromethane	85.3	70-130		%REC	1	3/22/2013 12:39:53 PM
Surr: Toluene-d8	86.3	70-130		%REC	1	3/22/2013 12:39:53 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2013 1st Quarter

Collection Date: 3/18/2013 1:46:00 PM

Lab ID: 1303777-004

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: MMD
Diesel Range Organics (DRO)	2.9	1.0		mg/L	1	3/22/2013 5:11:17 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2013 5:11:17 PM
Surr: DNOP	128	75.4-146		%REC	1	3/22/2013 5:11:17 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	0.65	0.050		mg/L	1	3/22/2013 10:26:18 PM
Surr: BFB	145	51.9-148		%REC	1	3/22/2013 10:26:18 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	380	25		µg/L	10	3/22/2013 9:57:38 PM
Benzene	70	1.0		µg/L	1	3/22/2013 10:26:18 PM
Toluene	ND	1.0		µg/L	1	3/22/2013 10:26:18 PM
Ethylbenzene	56	1.0		µg/L	1	3/22/2013 10:26:18 PM
Xylenes, Total	2.2	2.0		µg/L	1	3/22/2013 10:26:18 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/22/2013 10:26:18 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/22/2013 10:26:18 PM
Surr: 4-Bromofluorobenzene	132	69.4-129	S	%REC	1	3/22/2013 10:26:18 PM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	1.6	0.50		mg/L	5	3/21/2013 11:06:47 PM
Chloride	270	10		mg/L	20	3/21/2013 11:19:12 PM
Bromide	1.2	0.50		mg/L	5	3/21/2013 11:06:47 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	3/21/2013 11:06:47 PM
Sulfate	4.9	2.5		mg/L	5	3/21/2013 11:06:47 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	3/22/2013 3:02:39 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	1.5	0.010		mg/L	5	3/22/2013 2:37:25 PM
Cadmium	ND	0.0020		mg/L	1	3/22/2013 2:35:07 PM
Calcium	77	1.0		mg/L	1	3/22/2013 2:35:07 PM
Chromium	ND	0.0060		mg/L	1	3/22/2013 2:35:07 PM
Copper	ND	0.0060		mg/L	1	3/22/2013 2:35:07 PM
Iron	1.1	0.10	*	mg/L	5	3/22/2013 2:37:25 PM
Lead	ND	0.0050		mg/L	1	3/22/2013 2:35:07 PM
Magnesium	15	1.0		mg/L	1	3/22/2013 2:35:07 PM
Manganese	1.2	0.010	*	mg/L	5	3/22/2013 2:37:25 PM
Potassium	ND	1.0		mg/L	1	3/22/2013 2:35:07 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 11:59:56 AM
Sodium	280	5.0		mg/L	5	3/25/2013 12:02:07 PM
Zinc	ND	0.010		mg/L	1	3/22/2013 2:35:07 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	1.6	0.010		mg/L	5	3/25/2013 8:18:45 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 8:15:12 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2013 1st Quarter

Collection Date: 3/18/2013 1:46:00 PM

Lab ID: 1303777-004

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Chromium	ND	0.0060		mg/L	1	3/25/2013 8:15:12 PM
Copper	ND	0.0060		mg/L	1	3/25/2013 8:15:12 PM
Iron	2.9	0.10	*	mg/L	5	3/25/2013 8:18:45 PM
Lead	ND	0.0050		mg/L	1	3/25/2013 8:15:12 PM
Manganese	1.3	0.010	*	mg/L	5	3/25/2013 8:18:45 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 8:15:12 PM
Zinc	0.015	0.010		mg/L	1	3/25/2013 8:15:12 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0062	0.0010		mg/L	1	3/21/2013 5:33:42 PM
Selenium	0.0024	0.0010		mg/L	1	3/21/2013 5:33:42 PM
Uranium	ND	0.0020		mg/L	2	3/27/2013 4:14:11 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0073	0.0025		mg/L	2.5	3/25/2013 12:54:05 PM
Selenium	ND	0.0025		mg/L	2.5	3/25/2013 12:54:05 PM
Uranium	ND	0.0025		mg/L	2.5	3/27/2013 12:10:08 PM
EPA METHOD 245.1: MERCURY						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	3/22/2013 10:19:11 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Acenaphthylene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Aniline	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Anthracene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Azobenzene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Benz(a)anthracene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Benzo(a)pyrene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Benzoic acid	ND	20		µg/L	1	3/21/2013 7:51:50 PM
Benzyl alcohol	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	3/21/2013 7:51:50 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Butyl benzyl phthalate	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Carbazole	ND	10		µg/L	1	3/21/2013 7:51:50 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	3/21/2013 7:51:50 PM
4-Chloroaniline	ND	10		µg/L	1	3/21/2013 7:51:50 PM
2-Chloronaphthalene	ND	10		µg/L	1	3/21/2013 7:51:50 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2013 1st Quarter

Collection Date: 3/18/2013 1:46:00 PM

Lab ID: 1303777-004

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chlorophenol	ND	10		µg/L	1	3/21/2013 7:51:50 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Chrysene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Di-n-butyl phthalate	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Di-n-octyl phthalate	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Dibenzofuran	ND	10		µg/L	1	3/21/2013 7:51:50 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Diethyl phthalate	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Dimethyl phthalate	ND	10		µg/L	1	3/21/2013 7:51:50 PM
2,4-Dichlorophenol	ND	20		µg/L	1	3/21/2013 7:51:50 PM
2,4-Dimethylphenol	ND	10		µg/L	1	3/21/2013 7:51:50 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	3/21/2013 7:51:50 PM
2,4-Dinitrophenol	ND	20		µg/L	1	3/21/2013 7:51:50 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Fluoranthene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Fluorene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Hexachlorobenzene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Hexachlorobutadiene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Hexachloroethane	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Isophorone	ND	10		µg/L	1	3/21/2013 7:51:50 PM
1-Methylnaphthalene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
2-Methylnaphthalene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
2-Methylphenol	ND	10		µg/L	1	3/21/2013 7:51:50 PM
3+4-Methylphenol	ND	10		µg/L	1	3/21/2013 7:51:50 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/21/2013 7:51:50 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	3/21/2013 7:51:50 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Naphthalene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
2-Nitroaniline	ND	10		µg/L	1	3/21/2013 7:51:50 PM
3-Nitroaniline	ND	10		µg/L	1	3/21/2013 7:51:50 PM
4-Nitroaniline	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Nitrobenzene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
2-Nitrophenol	ND	10		µg/L	1	3/21/2013 7:51:50 PM
4-Nitrophenol	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Pentachlorophenol	ND	20		µg/L	1	3/21/2013 7:51:50 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2013 1st Quarter

Collection Date: 3/18/2013 1:46:00 PM

Lab ID: 1303777-004

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenanthrene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Phenol	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Pyrene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Pyridine	ND	10		µg/L	1	3/21/2013 7:51:50 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/21/2013 7:51:50 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/21/2013 7:51:50 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	3/21/2013 7:51:50 PM
Surr: 2,4,6-Tribromophenol	78.5	42.9-124		%REC	1	3/21/2013 7:51:50 PM
Surr: 2-Fluorobiphenyl	61.3	40-108		%REC	1	3/21/2013 7:51:50 PM
Surr: 2-Fluorophenol	50.1	23.6-94.8		%REC	1	3/21/2013 7:51:50 PM
Surr: 4-Terphenyl-d14	69.4	41.9-103		%REC	1	3/21/2013 7:51:50 PM
Surr: Nitrobenzene-d5	64.0	42.6-114		%REC	1	3/21/2013 7:51:50 PM
Surr: Phenol-d5	36.3	20.3-74.7		%REC	1	3/21/2013 7:51:50 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2013 1st Quarter

Collection Date: 3/18/2013 2:00:00 PM

Lab ID: 1303777-005

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: MMD
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/22/2013 5:33:00 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2013 5:33:00 PM
Surr: DNOP	127	75.4-146		%REC	1	3/22/2013 5:33:00 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	0.063	0.050		mg/L	1	3/22/2013 7:34:38 PM
Surr: BFB	97.8	51.9-148		%REC	1	3/22/2013 7:34:38 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	17	2.5		µg/L	1	3/22/2013 7:34:38 PM
Benzene	11	1.0		µg/L	1	3/22/2013 7:34:38 PM
Toluene	ND	1.0		µg/L	1	3/22/2013 7:34:38 PM
Ethylbenzene	11	1.0		µg/L	1	3/22/2013 7:34:38 PM
Xylenes, Total	ND	2.0		µg/L	1	3/22/2013 7:34:38 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/22/2013 7:34:38 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/22/2013 7:34:38 PM
Surr: 4-Bromofluorobenzene	105	69.4-129		%REC	1	3/22/2013 7:34:38 PM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	1.8	0.50		mg/L	5	3/21/2013 11:56:26 PM
Chloride	180	10		mg/L	20	3/22/2013 12:08:51 AM
Bromide	1.2	0.50		mg/L	5	3/21/2013 11:56:26 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	3/21/2013 11:56:26 PM
Sulfate	81	2.5		mg/L	5	3/21/2013 11:56:26 PM
Nitrate+Nitrite as N	2.4	1.0		mg/L	5	3/22/2013 3:15:03 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	0.063	0.0020		mg/L	1	3/22/2013 2:39:54 PM
Cadmium	ND	0.0020		mg/L	1	3/22/2013 2:39:54 PM
Calcium	74	1.0		mg/L	1	3/22/2013 2:39:54 PM
Chromium	ND	0.0060		mg/L	1	3/22/2013 2:39:54 PM
Copper	ND	0.0060		mg/L	1	3/22/2013 2:39:54 PM
Iron	ND	0.020		mg/L	1	3/22/2013 2:39:54 PM
Lead	ND	0.0050		mg/L	1	3/22/2013 2:39:54 PM
Magnesium	12	1.0		mg/L	1	3/22/2013 2:39:54 PM
Manganese	0.53	0.0020	*	mg/L	1	3/22/2013 2:39:54 PM
Potassium	2.5	1.0		mg/L	1	3/22/2013 2:39:54 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 12:04:28 PM
Sodium	260	5.0		mg/L	5	3/25/2013 12:06:57 PM
Zinc	0.022	0.010		mg/L	1	3/22/2013 2:39:54 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.079	0.0020		mg/L	1	3/25/2013 8:24:30 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 8:24:30 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2013 1st Quarter

Collection Date: 3/18/2013 2:00:00 PM

Lab ID: 1303777-005

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Chromium	ND	0.0060		mg/L	1	3/25/2013 8:24:30 PM
Copper	ND	0.0060		mg/L	1	3/25/2013 8:24:30 PM
Iron	0.62	0.020	*	mg/L	1	3/25/2013 8:24:30 PM
Lead	0.0058	0.0050		mg/L	1	3/25/2013 8:24:30 PM
Manganese	0.58	0.0020	*	mg/L	1	3/25/2013 8:24:30 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 8:24:30 PM
Zinc	ND	0.010		mg/L	1	3/25/2013 8:24:30 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0019	0.0010		mg/L	1	3/21/2013 5:37:29 PM
Selenium	0.0029	0.0010		mg/L	1	3/21/2013 5:37:29 PM
Uranium	0.019	0.0020		mg/L	2	3/27/2013 4:16:03 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	ND	0.0025		mg/L	2.5	3/25/2013 12:55:57 PM
Selenium	ND	0.0025		mg/L	2.5	3/25/2013 12:55:57 PM
Uranium	0.020	0.0025		mg/L	2.5	3/27/2013 12:12:00 PM
EPA METHOD 245.1: MERCURY						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	3/22/2013 10:21:02 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Acenaphthylene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Aniline	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Anthracene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Azobenzene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Benz(a)anthracene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Benzo(a)pyrene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Benzoic acid	ND	20		µg/L	1	3/21/2013 8:22:46 PM
Benzyl alcohol	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	3/21/2013 8:22:46 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Butyl benzyl phthalate	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Carbazole	ND	10		µg/L	1	3/21/2013 8:22:46 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	3/21/2013 8:22:46 PM
4-Chloroaniline	ND	10		µg/L	1	3/21/2013 8:22:46 PM
2-Chloronaphthalene	ND	10		µg/L	1	3/21/2013 8:22:46 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2013 1st Quarter

Collection Date: 3/18/2013 2:00:00 PM

Lab ID: 1303777-005

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chlorophenol	ND	10		µg/L	1	3/21/2013 8:22:46 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Chrysene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Di-n-butyl phthalate	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Di-n-octyl phthalate	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Dibenzofuran	ND	10		µg/L	1	3/21/2013 8:22:46 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Diethyl phthalate	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Dimethyl phthalate	ND	10		µg/L	1	3/21/2013 8:22:46 PM
2,4-Dichlorophenol	ND	20		µg/L	1	3/21/2013 8:22:46 PM
2,4-Dimethylphenol	ND	10		µg/L	1	3/21/2013 8:22:46 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	3/21/2013 8:22:46 PM
2,4-Dinitrophenol	ND	20		µg/L	1	3/21/2013 8:22:46 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Fluoranthene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Fluorene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Hexachlorobenzene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Hexachlorobutadiene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Hexachloroethane	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Isophorone	ND	10		µg/L	1	3/21/2013 8:22:46 PM
1-Methylnaphthalene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
2-Methylnaphthalene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
2-Methylphenol	ND	10		µg/L	1	3/21/2013 8:22:46 PM
3+4-Methylphenol	ND	10		µg/L	1	3/21/2013 8:22:46 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/21/2013 8:22:46 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	3/21/2013 8:22:46 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Naphthalene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
2-Nitroaniline	ND	10		µg/L	1	3/21/2013 8:22:46 PM
3-Nitroaniline	ND	10		µg/L	1	3/21/2013 8:22:46 PM
4-Nitroaniline	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Nitrobenzene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
2-Nitrophenol	ND	10		µg/L	1	3/21/2013 8:22:46 PM
4-Nitrophenol	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Pentachlorophenol	ND	20		µg/L	1	3/21/2013 8:22:46 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2013 1st Quarter

Collection Date: 3/18/2013 2:00:00 PM

Lab ID: 1303777-005

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenanthrene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Phenol	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Pyrene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Pyridine	ND	10		µg/L	1	3/21/2013 8:22:46 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/21/2013 8:22:46 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/21/2013 8:22:46 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	3/21/2013 8:22:46 PM
Surr: 2,4,6-Tribromophenol	70.4	42.9-124		%REC	1	3/21/2013 8:22:46 PM
Surr: 2-Fluorobiphenyl	61.2	40-108		%REC	1	3/21/2013 8:22:46 PM
Surr: 2-Fluorophenol	45.7	23.6-94.8		%REC	1	3/21/2013 8:22:46 PM
Surr: 4-Terphenyl-d14	71.8	41.9-103		%REC	1	3/21/2013 8:22:46 PM
Surr: Nitrobenzene-d5	63.6	42.6-114		%REC	1	3/21/2013 8:22:46 PM
Surr: Phenol-d5	33.5	20.3-74.7		%REC	1	3/21/2013 8:22:46 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2013 1st Quarter

Collection Date: 3/18/2013 2:16:00 PM

Lab ID: 1303777-006

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: MMD
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/22/2013 5:54:53 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2013 5:54:53 PM
Surr: DNOP	117	75.4-146		%REC	1	3/22/2013 5:54:53 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.10		mg/L	2	3/22/2013 11:23:32 PM
Surr: BFB	84.7	51.9-148		%REC	2	3/22/2013 11:23:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	2	3/22/2013 11:23:32 PM
Benzene	ND	2.0		µg/L	2	3/22/2013 11:23:32 PM
Toluene	ND	2.0		µg/L	2	3/22/2013 11:23:32 PM
Ethylbenzene	ND	2.0		µg/L	2	3/22/2013 11:23:32 PM
Xylenes, Total	ND	4.0		µg/L	2	3/22/2013 11:23:32 PM
1,2,4-Trimethylbenzene	ND	2.0		µg/L	2	3/22/2013 11:23:32 PM
1,3,5-Trimethylbenzene	ND	2.0		µg/L	2	3/22/2013 11:23:32 PM
Surr: 4-Bromofluorobenzene	94.5	69.4-129		%REC	2	3/22/2013 11:23:32 PM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	1.3	0.50		mg/L	5	3/22/2013 12:21:16 AM
Chloride	940	50		mg/L	100	3/22/2013 9:40:07 PM
Bromide	4.8	0.50		mg/L	5	3/22/2013 12:21:16 AM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	3/22/2013 12:21:16 AM
Sulfate	380	10		mg/L	20	3/22/2013 12:33:41 AM
Nitrate+Nitrite as N	17	2.0	*	mg/L	10	3/22/2013 10:04:56 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	0.18	0.0020		mg/L	1	3/22/2013 2:44:58 PM
Cadmium	ND	0.0020		mg/L	1	3/22/2013 2:44:58 PM
Calcium	48	1.0		mg/L	1	3/22/2013 2:44:58 PM
Chromium	ND	0.0060		mg/L	1	3/22/2013 2:44:58 PM
Copper	0.0065	0.0060		mg/L	1	3/22/2013 2:44:58 PM
Iron	4.6	0.10	*	mg/L	5	3/22/2013 2:47:25 PM
Lead	ND	0.0050		mg/L	1	3/22/2013 2:44:58 PM
Magnesium	7.8	1.0		mg/L	1	3/22/2013 2:44:58 PM
Manganese	0.25	0.0020	*	mg/L	1	3/22/2013 2:44:58 PM
Potassium	5.4	1.0		mg/L	1	3/22/2013 2:44:58 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 12:09:13 PM
Sodium	810	10		mg/L	10	3/25/2013 12:11:23 PM
Zinc	0.037	0.010		mg/L	1	3/22/2013 2:44:58 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	3.8	0.020	*	mg/L	10	3/26/2013 3:37:21 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 8:32:49 PM

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2013 1st Quarter

Collection Date: 3/18/2013 2:16:00 PM

Lab ID: 1303777-006

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Chromium	0.13	0.0060	*	mg/L	1	3/25/2013 8:32:49 PM
Copper	0.16	0.0060		mg/L	1	3/25/2013 8:32:49 PM
Iron	62	2.0	*	mg/L	100	3/26/2013 3:40:34 PM
Lead	0.097	0.025	*	mg/L	5	3/25/2013 8:44:14 PM
Manganese	3.8	0.010	*	mg/L	5	3/26/2013 3:22:17 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 8:32:49 PM
Zinc	1.1	0.050		mg/L	5	3/26/2013 3:22:17 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0048	0.0020		mg/L	2	3/27/2013 4:17:55 PM
Selenium	0.012	0.0020		mg/L	2	3/27/2013 4:17:55 PM
Uranium	0.037	0.0020	*	mg/L	2	3/27/2013 4:17:55 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.016	0.0025	*	mg/L	2.5	3/25/2013 12:57:49 PM
Selenium	0.0089	0.0025		mg/L	2.5	3/25/2013 12:57:49 PM
Uranium	0.052	0.0025	*	mg/L	2.5	3/27/2013 12:19:34 PM
EPA METHOD 245.1: MERCURY						Analyst: TMG
Mercury	0.0016	0.00020		mg/L	1	3/25/2013 1:47:25 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Acenaphthylene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Aniline	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Anthracene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Azobenzene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Benz(a)anthracene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Benzo(a)pyrene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Benzoic acid	ND	20		µg/L	1	3/21/2013 8:53:36 PM
Benzyl alcohol	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	3/21/2013 8:53:36 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Butyl benzyl phthalate	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Carbazole	ND	10		µg/L	1	3/21/2013 8:53:36 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	3/21/2013 8:53:36 PM
4-Chloroaniline	ND	10		µg/L	1	3/21/2013 8:53:36 PM
2-Chloronaphthalene	ND	10		µg/L	1	3/21/2013 8:53:36 PM

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- RL Reporting Detection Limit

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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2013 1st Quarter

Collection Date: 3/18/2013 2:16:00 PM

Lab ID: 1303777-006

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chlorophenol	ND	10		µg/L	1	3/21/2013 8:53:36 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Chrysene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Di-n-butyl phthalate	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Di-n-octyl phthalate	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Dibenzofuran	ND	10		µg/L	1	3/21/2013 8:53:36 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Diethyl phthalate	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Dimethyl phthalate	ND	10		µg/L	1	3/21/2013 8:53:36 PM
2,4-Dichlorophenol	ND	20		µg/L	1	3/21/2013 8:53:36 PM
2,4-Dimethylphenol	ND	10		µg/L	1	3/21/2013 8:53:36 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	3/21/2013 8:53:36 PM
2,4-Dinitrophenol	ND	20		µg/L	1	3/21/2013 8:53:36 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Fluoranthene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Fluorene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Hexachlorobenzene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Hexachlorobutadiene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Hexachloroethane	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Isophorone	ND	10		µg/L	1	3/21/2013 8:53:36 PM
1-Methylnaphthalene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
2-Methylnaphthalene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
2-Methylphenol	ND	10		µg/L	1	3/21/2013 8:53:36 PM
3+4-Methylphenol	ND	10		µg/L	1	3/21/2013 8:53:36 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/21/2013 8:53:36 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	3/21/2013 8:53:36 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Naphthalene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
2-Nitroaniline	ND	10		µg/L	1	3/21/2013 8:53:36 PM
3-Nitroaniline	ND	10		µg/L	1	3/21/2013 8:53:36 PM
4-Nitroaniline	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Nitrobenzene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
2-Nitrophenol	ND	10		µg/L	1	3/21/2013 8:53:36 PM
4-Nitrophenol	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Pentachlorophenol	ND	20		µg/L	1	3/21/2013 8:53:36 PM

Qualifiers:

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2013 1st Quarter

Collection Date: 3/18/2013 2:16:00 PM

Lab ID: 1303777-006

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenanthrene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Phenol	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Pyrene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Pyridine	ND	10		µg/L	1	3/21/2013 8:53:36 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/21/2013 8:53:36 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/21/2013 8:53:36 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	3/21/2013 8:53:36 PM
Surr: 2,4,6-Tribromophenol	75.7	42.9-124		%REC	1	3/21/2013 8:53:36 PM
Surr: 2-Fluorobiphenyl	69.2	40-108		%REC	1	3/21/2013 8:53:36 PM
Surr: 2-Fluorophenol	54.7	23.6-94.8		%REC	1	3/21/2013 8:53:36 PM
Surr: 4-Terphenyl-d14	75.7	41.9-103		%REC	1	3/21/2013 8:53:36 PM
Surr: Nitrobenzene-d5	79.0	42.6-114		%REC	1	3/21/2013 8:53:36 PM
Surr: Phenol-d5	37.7	20.3-74.7		%REC	1	3/21/2013 8:53:36 PM

Qualifiers:

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P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2013 1st Quarter

Collection Date: 3/18/2013 2:25:00 PM

Lab ID: 1303777-007

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: MMD
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/22/2013 6:16:36 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2013 6:16:36 PM
Surr: DNOP	129	75.4-146		%REC	1	3/22/2013 6:16:36 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/22/2013 11:52:06 PM
Surr: BFB	83.4	51.9-148		%REC	1	3/22/2013 11:52:06 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/22/2013 11:52:06 PM
Benzene	ND	1.0		µg/L	1	3/22/2013 11:52:06 PM
Toluene	ND	1.0		µg/L	1	3/22/2013 11:52:06 PM
Ethylbenzene	ND	1.0		µg/L	1	3/22/2013 11:52:06 PM
Xylenes, Total	ND	2.0		µg/L	1	3/22/2013 11:52:06 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/22/2013 11:52:06 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/22/2013 11:52:06 PM
Surr: 4-Bromofluorobenzene	92.2	69.4-129		%REC	1	3/22/2013 11:52:06 PM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	0.63	0.50		mg/L	5	3/22/2013 12:46:06 AM
Chloride	97	2.5		mg/L	5	3/22/2013 12:46:06 AM
Bromide	1.8	0.50		mg/L	5	3/22/2013 12:46:06 AM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	3/22/2013 12:46:06 AM
Sulfate	39	2.5		mg/L	5	3/22/2013 12:46:06 AM
Nitrate+Nitrite as N	1.1	1.0		mg/L	5	3/22/2013 3:39:52 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	0.091	0.0020		mg/L	1	3/22/2013 2:49:39 PM
Cadmium	ND	0.0020		mg/L	1	3/22/2013 2:49:39 PM
Calcium	56	1.0		mg/L	1	3/22/2013 2:49:39 PM
Chromium	ND	0.0060		mg/L	1	3/22/2013 2:49:39 PM
Copper	ND	0.0060		mg/L	1	3/22/2013 2:49:39 PM
Iron	ND	0.020		mg/L	1	3/22/2013 2:49:39 PM
Lead	ND	0.0050		mg/L	1	3/22/2013 2:49:39 PM
Magnesium	11	1.0		mg/L	1	3/22/2013 2:49:39 PM
Manganese	0.0041	0.0020		mg/L	1	3/22/2013 2:49:39 PM
Potassium	ND	1.0		mg/L	1	3/22/2013 2:49:39 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 12:13:29 PM
Sodium	270	5.0		mg/L	5	3/25/2013 12:15:55 PM
Zinc	ND	0.010		mg/L	1	3/22/2013 2:49:39 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.13	0.0020		mg/L	1	3/25/2013 9:07:06 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 9:07:06 PM

Qualifiers:

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- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2013 1st Quarter

Collection Date: 3/18/2013 2:25:00 PM

Lab ID: 1303777-007

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Chromium	ND	0.0060		mg/L	1	3/25/2013 9:07:06 PM
Copper	ND	0.0060		mg/L	1	3/25/2013 9:07:06 PM
Iron	1.4	0.10	*	mg/L	5	3/25/2013 9:11:07 PM
Lead	ND	0.0050		mg/L	1	3/25/2013 9:07:06 PM
Manganese	0.14	0.0020	*	mg/L	1	3/25/2013 9:07:06 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 9:07:06 PM
Zinc	0.011	0.010		mg/L	1	3/25/2013 9:07:06 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0016	0.0010		mg/L	1	3/21/2013 5:45:02 PM
Selenium	0.0034	0.0010		mg/L	1	3/21/2013 5:45:02 PM
Uranium	0.017	0.0020		mg/L	2	3/27/2013 4:19:47 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	ND	0.0025		mg/L	2.5	3/27/2013 12:21:26 PM
Selenium	0.0039	0.0025		mg/L	2.5	3/27/2013 12:21:26 PM
Uranium	0.017	0.0025		mg/L	2.5	3/27/2013 12:21:26 PM
EPA METHOD 245.1: MERCURY						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	3/22/2013 10:22:53 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Acenaphthylene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Aniline	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Anthracene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Azobenzene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Benz(a)anthracene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Benzo(a)pyrene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Benzoic acid	ND	20		µg/L	1	3/21/2013 9:24:19 PM
Benzyl alcohol	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	3/21/2013 9:24:19 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Butyl benzyl phthalate	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Carbazole	ND	10		µg/L	1	3/21/2013 9:24:19 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	3/21/2013 9:24:19 PM
4-Chloroaniline	ND	10		µg/L	1	3/21/2013 9:24:19 PM
2-Chloronaphthalene	ND	10		µg/L	1	3/21/2013 9:24:19 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2013 1st Quarter

Collection Date: 3/18/2013 2:25:00 PM

Lab ID: 1303777-007

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chlorophenol	ND	10		µg/L	1	3/21/2013 9:24:19 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Chrysene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Di-n-butyl phthalate	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Di-n-octyl phthalate	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Dibenzofuran	ND	10		µg/L	1	3/21/2013 9:24:19 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Diethyl phthalate	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Dimethyl phthalate	ND	10		µg/L	1	3/21/2013 9:24:19 PM
2,4-Dichlorophenol	ND	20		µg/L	1	3/21/2013 9:24:19 PM
2,4-Dimethylphenol	ND	10		µg/L	1	3/21/2013 9:24:19 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	3/21/2013 9:24:19 PM
2,4-Dinitrophenol	ND	20		µg/L	1	3/21/2013 9:24:19 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Fluoranthene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Fluorene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Hexachlorobenzene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Hexachlorobutadiene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Hexachloroethane	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Isophorone	ND	10		µg/L	1	3/21/2013 9:24:19 PM
1-Methylnaphthalene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
2-Methylnaphthalene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
2-Methylphenol	ND	10		µg/L	1	3/21/2013 9:24:19 PM
3+4-Methylphenol	ND	10		µg/L	1	3/21/2013 9:24:19 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/21/2013 9:24:19 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	3/21/2013 9:24:19 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Naphthalene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
2-Nitroaniline	ND	10		µg/L	1	3/21/2013 9:24:19 PM
3-Nitroaniline	ND	10		µg/L	1	3/21/2013 9:24:19 PM
4-Nitroaniline	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Nitrobenzene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
2-Nitrophenol	ND	10		µg/L	1	3/21/2013 9:24:19 PM
4-Nitrophenol	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Pentachlorophenol	ND	20		µg/L	1	3/21/2013 9:24:19 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2013 1st Quarter

Collection Date: 3/18/2013 2:25:00 PM

Lab ID: 1303777-007

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenanthrene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Phenol	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Pyrene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Pyridine	ND	10		µg/L	1	3/21/2013 9:24:19 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/21/2013 9:24:19 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/21/2013 9:24:19 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	3/21/2013 9:24:19 PM
Surr: 2,4,6-Tribromophenol	79.3	42.9-124		%REC	1	3/21/2013 9:24:19 PM
Surr: 2-Fluorobiphenyl	74.4	40-108		%REC	1	3/21/2013 9:24:19 PM
Surr: 2-Fluorophenol	60.3	23.6-94.8		%REC	1	3/21/2013 9:24:19 PM
Surr: 4-Terphenyl-d14	82.3	41.9-103		%REC	1	3/21/2013 9:24:19 PM
Surr: Nitrobenzene-d5	79.5	42.6-114		%REC	1	3/21/2013 9:24:19 PM
Surr: Phenol-d5	42.9	20.3-74.7		%REC	1	3/21/2013 9:24:19 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 1st Quarter

Collection Date:

Lab ID: 1303777-008

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/23/2013 12:20:41 AM
Surr: BFB	84.6	51.9-148		%REC	1	3/23/2013 12:20:41 AM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
Toluene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
Ethylbenzene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
Naphthalene	ND	2.0		µg/L	1	3/21/2013 9:40:30 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/21/2013 9:40:30 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/21/2013 9:40:30 PM
Acetone	ND	10		µg/L	1	3/21/2013 9:40:30 PM
Bromobenzene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
Bromodichloromethane	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
Bromoform	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
Bromomethane	ND	3.0		µg/L	1	3/21/2013 9:40:30 PM
2-Butanone	ND	10		µg/L	1	3/21/2013 9:40:30 PM
Carbon disulfide	ND	10		µg/L	1	3/21/2013 9:40:30 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
Chlorobenzene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
Chloroethane	ND	2.0		µg/L	1	3/21/2013 9:40:30 PM
Chloroform	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
Chloromethane	ND	3.0		µg/L	1	3/21/2013 9:40:30 PM
2-Chlorotoluene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
4-Chlorotoluene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
cis-1,2-DCE	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/21/2013 9:40:30 PM
Dibromochloromethane	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
Dibromomethane	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 1st Quarter

Collection Date:

Lab ID: 1303777-008

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
2,2-Dichloropropane	ND	2.0		µg/L	1	3/21/2013 9:40:30 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
2-Hexanone	ND	10		µg/L	1	3/21/2013 9:40:30 PM
Isopropylbenzene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	3/21/2013 9:40:30 PM
Methylene Chloride	ND	3.0		µg/L	1	3/21/2013 9:40:30 PM
n-Butylbenzene	ND	3.0		µg/L	1	3/21/2013 9:40:30 PM
n-Propylbenzene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
sec-Butylbenzene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
Styrene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
tert-Butylbenzene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/21/2013 9:40:30 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
trans-1,2-DCE	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/21/2013 9:40:30 PM
Vinyl chloride	ND	1.0		µg/L	1	3/21/2013 9:40:30 PM
Xylenes, Total	ND	1.5		µg/L	1	3/21/2013 9:40:30 PM
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	3/21/2013 9:40:30 PM
Surr: 4-Bromofluorobenzene	90.1	69.5-130		%REC	1	3/21/2013 9:40:30 PM
Surr: Dibromofluoromethane	95.3	70-130		%REC	1	3/21/2013 9:40:30 PM
Surr: Toluene-d8	88.5	70-130		%REC	1	3/21/2013 9:40:30 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 1st Quarter

Collection Date:

Lab ID: 1303777-009

Matrix: TRIP BLANK

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/23/2013 12:49:15 AM
Surr: BFB	84.3	51.9-148		%REC	1	3/23/2013 12:49:15 AM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
Toluene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
Ethylbenzene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
Naphthalene	ND	2.0		µg/L	1	3/21/2013 10:12:38 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/21/2013 10:12:38 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/21/2013 10:12:38 PM
Acetone	ND	10		µg/L	1	3/21/2013 10:12:38 PM
Bromobenzene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
Bromodichloromethane	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
Bromoform	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
Bromomethane	ND	3.0		µg/L	1	3/21/2013 10:12:38 PM
2-Butanone	ND	10		µg/L	1	3/21/2013 10:12:38 PM
Carbon disulfide	ND	10		µg/L	1	3/21/2013 10:12:38 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
Chlorobenzene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
Chloroethane	ND	2.0		µg/L	1	3/21/2013 10:12:38 PM
Chloroform	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
Chloromethane	ND	3.0		µg/L	1	3/21/2013 10:12:38 PM
2-Chlorotoluene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
4-Chlorotoluene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
cis-1,2-DCE	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/21/2013 10:12:38 PM
Dibromochloromethane	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
Dibromomethane	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303777

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 1st Quarter

Collection Date:

Lab ID: 1303777-009

Matrix: TRIP BLANK

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
2,2-Dichloropropane	ND	2.0		µg/L	1	3/21/2013 10:12:38 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
2-Hexanone	ND	10		µg/L	1	3/21/2013 10:12:38 PM
Isopropylbenzene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	3/21/2013 10:12:38 PM
Methylene Chloride	ND	3.0		µg/L	1	3/21/2013 10:12:38 PM
n-Butylbenzene	ND	3.0		µg/L	1	3/21/2013 10:12:38 PM
n-Propylbenzene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
sec-Butylbenzene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
Styrene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
tert-Butylbenzene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/21/2013 10:12:38 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
trans-1,2-DCE	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/21/2013 10:12:38 PM
Vinyl chloride	ND	1.0		µg/L	1	3/21/2013 10:12:38 PM
Xylenes, Total	ND	1.5		µg/L	1	3/21/2013 10:12:38 PM
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	3/21/2013 10:12:38 PM
Surr: 4-Bromofluorobenzene	90.9	69.5-130		%REC	1	3/21/2013 10:12:38 PM
Surr: Dibromofluoromethane	92.5	70-130		%REC	1	3/21/2013 10:12:38 PM
Surr: Toluene-d8	95.6	70-130		%REC	1	3/21/2013 10:12:38 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R9363	RunNo:	9363					
Prep Date:	2/22/2013	Analysis Date:	3/22/2013	SeqNo:	266876	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								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R9363	RunNo:	9363					
Prep Date:		Analysis Date:	3/22/2013	SeqNo:	266877	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.6	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Calcium	47	1.0	50.00	0	94.4	85	115			
Chromium	0.52	0.0060	0.5000	0	103	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.48	0.020	0.5000	0	96.2	85	115			
Lead	0.51	0.0050	0.5000	0	101	85	115			
Magnesium	47	1.0	50.00	0	94.9	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Potassium	46	1.0	50.00	0	92.9	85	115			
Zinc	0.51	0.010	0.5000	0	102	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R9390	RunNo:	9390					
Prep Date:	2/22/2013	Analysis Date:	3/25/2013	SeqNo:	268037	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Iron	ND	0.020								
Silver	ND	0.0050								
Sodium	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

RL Reporting Detection Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R9390		RunNo: 9390					
Prep Date:			Analysis Date: 3/25/2013		SeqNo: 268038		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	44	1.0	50.00	0	87.7	85	115			
Iron	0.49	0.020	0.5000	0	98.7	85	115			
Silver	0.11	0.0050	0.1000	0	105	85	115			
Sodium	43	1.0	50.00	0	85.2	85	115			

Sample ID	1303586-001FMS		SampType: MS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID: R9390			RunNo: 9390				
Prep Date:			Analysis Date: 3/25/2013			SeqNo: 268084		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	280	5.0	250.0	41.28	97.0	70	130			

Sample ID	1303586-001FMSD			SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC			Batch ID:	R9390		RunNo:	9390			
Prep Date:				Analysis Date:	3/25/2013		SeqNo:	268085		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Calcium	290	5.0	250.0	41.28	98.4	70	130	1.15	20		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303777-006FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	NAPIS-3		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268719		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.39	0.0020	0.5000	0	78.3	70	130			
Chromium	0.51	0.0060	0.5000	0.1315	76.5	70	130			
Copper	0.57	0.0060	0.5000	0.1646	81.2	70	130			
Silver	0.086	0.0050	0.1000	0	86.4	70	130			

Sample ID	1303777-006FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	NAPIS-3		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268720		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.39	0.0020	0.5000	0	78.8	70	130	0.619	20	
Chromium	0.51	0.0060	0.5000	0.1315	76.0	70	130	0.419	20	
Copper	0.57	0.0060	0.5000	0.1646	80.6	70	130	0.517	20	
Silver	0.086	0.0050	0.1000	0	85.6	70	130	0.942	20	

Sample ID	1303777-006FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	NAPIS-3		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268725		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.48	0.025	0.5000	0.09730	76.8	70	130			

Sample ID	1303777-006FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	NAPIS-3		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268726		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.50	0.025	0.5000	0.09730	81.3	70	130	4.56	20	

Sample ID	MB-6621		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268747		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								
Lead	ND	0.0050								
Manganese	ND	0.0020								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB-6621		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268747		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-6621		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268748		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.1	85	115			
Cadmium	0.49	0.0020	0.5000	0	97.4	85	115			
Chromium	0.49	0.0060	0.5000	0	97.5	85	115			
Copper	0.47	0.0060	0.5000	0	95.0	85	115			
Iron	0.50	0.020	0.5000	0	99.3	85	115			
Lead	0.49	0.0050	0.5000	0	98.4	85	115			
Manganese	0.48	0.0020	0.5000	0	95.2	85	115			
Silver	0.099	0.0050	0.1000	0	99.2	85	115			
Zinc	0.48	0.010	0.5000	0	96.1	85	115			

Sample ID	1303777-006FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	NAPIS-3		Batch ID: 6621		RunNo: 9432					
Prep Date:	3/22/2013		Analysis Date: 3/26/2013		SeqNo: 269299		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	4.4	0.010	0.5000	3.849	103	70	130			
Zinc	1.5	0.050	0.5000	1.108	88.1	70	130			

Sample ID	1303777-006FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	NAPIS-3		Batch ID: 6621		RunNo: 9432					
Prep Date:	3/22/2013		Analysis Date: 3/26/2013		SeqNo: 269300		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	4.4	0.010	0.5000	3.849	118	70	130	1.70	20	
Zinc	1.6	0.050	0.5000	1.108	93.3	70	130	1.68	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303777-007EMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	NAPIS-1		Batch ID: R9334		RunNo: 9334					
Prep Date:			Analysis Date: 3/21/2013		SeqNo: 266100		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0010	0.02500	0.001577	108	70	130			
Selenium	0.030	0.0010	0.02500	0.003405	107	70	130			

Sample ID	1303779-001CMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R9334		RunNo: 9334					
Prep Date:			Analysis Date: 3/21/2013		SeqNo: 266102		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.003775	101	70	130			
Selenium	0.12	0.0050	0.1250	0.01323	88.1	70	130			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R9334		RunNo: 9334					
Prep Date:			Analysis Date: 3/21/2013		SeqNo: 266106		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.8	85	115			
Selenium	0.023	0.0010	0.02500	0	90.7	85	115			

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R9334		RunNo: 9334					
Prep Date:			Analysis Date: 3/21/2013		SeqNo: 266107		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	1303777-007EMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	NAPIS-1		Batch ID: R9463		RunNo: 9463					
Prep Date:			Analysis Date: 3/27/2013		SeqNo: 270152		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.069	0.0020	0.05000	0.01685	104	70	130			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R9463		RunNo: 9463					
Prep Date:			Analysis Date: 3/27/2013		SeqNo: 270155		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	98.1	85	115			
Selenium	0.024	0.0010	0.02500	0	96.8	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

RL Reporting Detection Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup**Project:** 2013 1st Quarter

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R9463		RunNo: 9463					
Prep Date:			Analysis Date: 3/27/2013		SeqNo: 270155		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R9463			RunNo: 9463					
Prep Date:		Analysis Date: 3/27/2013			SeqNo: 270156		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303774-006FLLMS		SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC		Batch ID:	6621		RunNo:	9392			
Prep Date:	3/22/2013		Analysis Date:	3/25/2013		SeqNo:	268142		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.050	0.0025	0.05000	0.001132	98.2	70	130			
Selenium	0.056	0.0025	0.05000	0.009825	91.7	70	130			

Sample ID	1303784-001ALLMS		SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC		Batch ID:	6621		RunNo:	9392			
Prep Date:	3/22/2013		Analysis Date:	3/25/2013		SeqNo:	268155		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.055	0.0025	0.05000	0.003289	104	70	130			

Sample ID	LLLCS-6621		SampType:	LCSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC		Batch ID:	6621		RunNo:	9392			
Prep Date:	3/22/2013		Analysis Date:	3/25/2013		SeqNo:	268160		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.052	0.0025	0.05000	0	103	85	115			
Selenium	0.054	0.0025	0.05000	0	108	85	115			

Sample ID	MB-6621		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	PBW		Batch ID:	6621		RunNo:	9392			
Prep Date:	3/22/2013		Analysis Date:	3/25/2013		SeqNo:	268164		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								

Sample ID	LLLCS-6621		SampType:	LCSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC		Batch ID:	6621		RunNo:	9456			
Prep Date:	3/22/2013		Analysis Date:	3/27/2013		SeqNo:	269950		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.051	0.0025	0.05000	0	101	85	115			

Sample ID	MB-6621		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	PBW		Batch ID:	6621		RunNo:	9456			
Prep Date:	3/22/2013		Analysis Date:	3/27/2013		SeqNo:	269952		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB-6600	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	6600	RunNo:	9353					
Prep Date:	3/21/2013	Analysis Date:	3/22/2013	SeqNo:	266679	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-6600	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	6600	RunNo:	9353					
Prep Date:	3/21/2013	Analysis Date:	3/22/2013	SeqNo:	266680	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0044	0.00020	0.005000	0	88.1	80	120			

Sample ID	1303594-007BMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	6600	RunNo:	9353					
Prep Date:	3/21/2013	Analysis Date:	3/22/2013	SeqNo:	266682	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0047	0.00020	0.005000	0	93.4	75	125			

Sample ID	1303594-007BMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	6600	RunNo:	9353					
Prep Date:	3/21/2013	Analysis Date:	3/22/2013	SeqNo:	266683	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0046	0.00020	0.005000	0	91.9	75	125	1.67	20	

Sample ID	MB-6630	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	6630	RunNo:	9403					
Prep Date:	3/25/2013	Analysis Date:	3/25/2013	SeqNo:	268428	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-6630	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	6630	RunNo:	9403					
Prep Date:	3/25/2013	Analysis Date:	3/25/2013	SeqNo:	268429	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	101	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303636-004AMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	6630	RunNo:	9403					
Prep Date:	3/25/2013	Analysis Date:	3/25/2013	SeqNo:	268432	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	75	125			

Sample ID	1303636-004AMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	6630	RunNo:	9403					
Prep Date:	3/25/2013	Analysis Date:	3/25/2013	SeqNo:	268434	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	99.6	75	125	2.21	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R9342		RunNo: 9342							
Prep Date:	Analysis Date: 3/21/2013		SeqNo: 266381		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R9342		RunNo: 9342							
Prep Date:	Analysis Date: 3/21/2013		SeqNo: 266382		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	97.0	90	110			
Chloride	4.6	0.50	5.000	0	92.2	90	110			
Bromide	2.4	0.10	2.500	0	94.2	90	110			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	94.8	90	110			
Sulfate	9.6	0.50	10.00	0	95.8	90	110			
Nitrate+Nitrite as N	3.3	0.20	3.500	0	94.8	90	110			

Sample ID 1303764-003AMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R9342		RunNo: 9342							
Prep Date:	Analysis Date: 3/21/2013		SeqNo: 266384		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.2	0.10	0.5000	0.08080	226	76.6	110			S
Bromide	2.7	0.10	2.500	0.3544	94.1	83.3	107			
Phosphorus, Orthophosphate (As P	6.9	0.50	5.000	2.248	92.1	74.5	115			

Sample ID 1303764-003AMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R9342		RunNo: 9342							
Prep Date:	Analysis Date: 3/21/2013		SeqNo: 266385		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.2	0.10	0.5000	0.08080	225	76.6	110	0.356	20	S
Bromide	2.7	0.10	2.500	0.3544	94.3	83.3	107	0.0997	20	
Phosphorus, Orthophosphate (As P	6.9	0.50	5.000	2.248	92.6	74.5	115	0.368	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

RL Reporting Detection Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303800-001CMS			SampType:	MS		TestCode:	EPA Method 300.0: Anions			
Client ID:	BatchQC			Batch ID:	R9342		RunNo:	9342			
Prep Date:				Analysis Date:	3/21/2013		SeqNo:	266412		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Fluoride	0.64	0.10	0.5000	0.1721	94.1	76.6	110				
Chloride	6.9	0.50	5.000	2.055	97.5	87.8	111				
Bromide	2.4	0.10	2.500	0	97.6	83.3	107				
Sulfate	28	0.50	10.00	17.16	108	84.6	122				

Sample ID	1303800-001CMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R9342		RunNo: 9342					
Prep Date:			Analysis Date: 3/21/2013		SeqNo: 266413		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.64	0.10	0.5000	0.1721	94.3	76.6	110	0.155	20	
Chloride	6.9	0.50	5.000	2.055	97.1	87.8	111	0.272	20	
Bromide	2.4	0.10	2.500	0	97.2	83.3	107	0.402	20	
Sulfate	28	0.50	10.00	17.16	108	84.6	122	0.0450	20	

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R9382			RunNo: 9382					
Prep Date:		Analysis Date: 3/22/2013			SeqNo: 267764		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R9382		RunNo: 9382					
Prep Date:			Analysis Date: 3/22/2013		SeqNo: 267765		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.4	90	110			
Sulfate	9.8	0.50	10.00	0	98.0	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.7	90	110			

Sample ID	1303874-003BMS		SampType: MS		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R9382		RunNo: 9382					
Prep Date:			Analysis Date: 3/22/2013		SeqNo: 267789		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	5.0	0.20	3.500	1.563	98.8	88.6	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 P Sample pH greater than 2
 RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303874-003BMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R9382		RunNo: 9382					
Prep Date:			Analysis Date: 3/22/2013		SeqNo: 267790		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	5.1	0.20	3.500	1.563	100	88.6	110	0.912	20	

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R9382			RunNo: 9382					
Prep Date:		Analysis Date: 3/23/2013			SeqNo: 267849		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R9382		RunNo: 9382					
Prep Date:			Analysis Date: 3/23/2013		SeqNo: 267850		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.7	90	110			
Sulfate	9.5	0.50	10.00	0	95.4	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	96.6	90	110			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R9473			RunNo: 9473					
Prep Date:		Analysis Date: 3/27/2013			SeqNo: 270383		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: R9473		RunNo: 9473					
Prep Date:			Analysis Date: 3/27/2013		SeqNo: 270385		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0	96.6	90	110			

Sample ID	1303A25-001EMS		SampType: MS		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R9473		RunNo: 9473					
Prep Date:			Analysis Date: 3/27/2013		SeqNo: 270410		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.4	88.6	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303A25-001EMSD		SampType:	MSD		TestCode:	EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID:	R9473		RunNo:	9473				
Prep Date:			Analysis Date:	3/27/2013		SeqNo:	270411		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Nitrate+Nitrite as N	3.4	0.20	3.500	0	98.0	88.6	110	0.635	20		

Sample ID	1303A26-001EMS		SampType: MS		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R9473		RunNo: 9473					
Prep Date:			Analysis Date: 3/27/2013		SeqNo: 270413		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.7	0.20	3.500	0.2940	97.3	88.6	110			

Sample ID	1303A26-001EMSD		SampType:	MSD		TestCode:	EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID:	R9473		RunNo:	9473				
Prep Date:			Analysis Date:	3/27/2013		SeqNo:	270414		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Nitrate+Nitrite as N	3.7	0.20	3.500	0.2940	97.5	88.6	110	0.259	20		

Sample ID	MB	SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBW	Batch ID:	R9473		RunNo:	9473				
Prep Date:		Analysis Date:	3/27/2013		SeqNo:	270445		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: R9473		RunNo: 9473					
Prep Date:			Analysis Date: 3/27/2013		SeqNo: 270446		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.3	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB-6602		SampType: MBLK		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	PBW		Batch ID: 6602		RunNo: 9345					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266495		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		105	75.4	146			

Sample ID	LCS-6602		SampType: LCS		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSW		Batch ID: 6602		RunNo: 9345					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266496		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.2	1.0	5.000	0	84.9	64.4	132			
Surr: DNOP	0.45		0.5000		89.1	75.4	146			

Sample ID	LCSD-6602		SampType: LCSD		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSS02		Batch ID: 6602		RunNo: 9345					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266629		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.7	1.0	5.000	0	93.9	64.4	132			
Surr: DNOP	0.50		0.5000		101	75.4	146			

Sample ID	MB-6602		SampType: MBLK		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	PBW		Batch ID: 6602		RunNo: 9344					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266700		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		107	75.4	146			

Sample ID	LCS-6602		SampType: LCS		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSW		Batch ID: 6602		RunNo: 9344					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266702		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.8	1.0	5.000	0	95.5	64.4	132			
Surr: DNOP	0.51		0.5000		102	75.4	146			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup**Project:** 2013 1st Quarter

Sample ID	LCSD-6602		SampType: LCSD		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSS02		Batch ID: 6602		RunNo: 9344					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266746		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.9	1.0	5.000	0	98.4	64.4	132	3.05	20	
Surr: DNOP	0.53		0.5000		106	75.4	146	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

RL Reporting Detection Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	5ML RB		SampType: MBLK		TestCode: EPA Method 8015B: Gasoline Range					
Client ID:	PBW		Batch ID: R9380		RunNo: 9380					
Prep Date:			Analysis Date: 3/22/2013		SeqNo: 267641		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		84.3	51.9	148			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015B: Gasoline Range					
Client ID:	LCSW		Batch ID: R9380		RunNo: 9380					
Prep Date:			Analysis Date: 3/22/2013		SeqNo: 267643		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.57	0.050	0.5000	0	114	73.2	124			
Surr: BFB	18		20.00		91.5	51.9	148			

Sample ID	1303779-001AMS		SampType: MS		TestCode: EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC		Batch ID: R9380		RunNo: 9380					
Prep Date:			Analysis Date: 3/22/2013		SeqNo: 267651		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	77	5.0	50.00	19.80	114	65.2	137			
Surr: BFB	1900		2000		95.3	51.9	148			

Sample ID	1303779-001AMSD		SampType: MSD		TestCode: EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC		Batch ID: R9380		RunNo: 9380					
Prep Date:			Analysis Date: 3/22/2013		SeqNo: 267652		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	72	5.0	50.00	19.80	103	65.2	137	7.07	20	
Surr: BFB	1900		2000		95.7	51.9	148	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID: R9380			RunNo: 9380					
Prep Date:		Analysis Date: 3/22/2013			SeqNo: 267691		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	19		20.00		93.8	69.4	129			

Sample ID	100NG BTEX LCS		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSW		Batch ID: R9380		RunNo: 9380					
Prep Date:			Analysis Date: 3/22/2013		SeqNo: 267692		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	21	2.5	20.00	0	106	76.9	115			
Benzene	21	1.0	20.00	0	103	80	120			
Toluene	21	1.0	20.00	0	106	80	120			
Ethylbenzene	21	1.0	20.00	0	106	80	120			
Xylenes, Total	64	2.0	60.00	0	106	80	120			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	104	80	120			
1,3,5-Trimethylbenzene	21	1.0	20.00	0	103	80	120			
Surr: 4-Bromofluorobenzene	20		20.00		98.7	69.4	129			

Sample ID	1303779-002AMS		SampType: MS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	BatchQC		Batch ID: R9380		RunNo: 9380					
Prep Date:			Analysis Date: 3/22/2013		SeqNo: 267704		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	3900	500	4000	0	96.9	65.6	125			
Benzene	16000	200	4000	12020	89.5	80	120			
Toluene	8600	200	4000	4644	100	80	120			
Ethylbenzene	4700	200	4000	606.6	101	80	120			
Xylenes, Total	19000	400	12000	6963	101	80	120			
1,2,4-Trimethylbenzene	5000	200	4000	900.1	102	74	128			
1,3,5-Trimethylbenzene	4300	200	4000	288.8	101	75.5	130			
Surr: 4-Bromofluorobenzene	4100		4000		102	69.4	129			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303779-002AMSD	SampType: MSD		TestCode: EPA Method 8021B: Volatiles						
Client ID:	BatchQC	Batch ID: R9380		RunNo: 9380						
Prep Date:	Analysis Date: 3/22/2013		SeqNo: 267705		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	3600	500	4000	0	90.1	65.6	125	7.31	20	
Benzene	15000	200	4000	12020	85.9	80	120	0.905	20	
Toluene	8500	200	4000	4644	96.1	80	120	1.86	20	
Ethylbenzene	4600	200	4000	606.6	99.2	80	120	1.80	20	
Xylenes, Total	19000	400	12000	6963	96.9	80	120	2.87	20	
1,2,4-Trimethylbenzene	4700	200	4000	900.1	95.0	74	128	5.43	20	
1,3,5-Trimethylbenzene	4200	200	4000	288.8	96.9	75.5	130	4.04	20	
Surr: 4-Bromofluorobenzene	4000		4000		99.9	69.4	129	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R9336	RunNo:	9336					
Prep Date:		Analysis Date:	3/21/2013	SeqNo:	266044	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								
1,1-Dichloropropene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R9336	RunNo:	9336					
Prep Date:		Analysis Date:	3/21/2013	SeqNo:	266044	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.1	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.3	69.5	130			
Surr: Dibromofluoromethane	8.7		10.00		87.4	70	130			
Surr: Toluene-d8	9.7		10.00		97.3	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R9336	RunNo:	9336					
Prep Date:		Analysis Date:	3/21/2013	SeqNo:	266048	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.4	70	130			
Toluene	21	1.0	20.00	0	105	80	120			
Chlorobenzene	20	1.0	20.00	0	97.9	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	110	85.8	133			
Trichloroethene (TCE)	18	1.0	20.00	0	89.2	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

RL Reporting Detection Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID 100ng lcs		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW		Batch ID: R9336		RunNo: 9336						
Prep Date:		Analysis Date: 3/21/2013		SeqNo: 266048		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.4	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.3	69.5	130			
Surr: Dibromofluoromethane	9.0		10.00		90.1	70	130			
Surr: Toluene-d8	9.6		10.00		95.7	70	130			

Sample ID	1303775-001ams	SampType: MS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID: R9336			RunNo: 9336					
Prep Date:		Analysis Date: 3/21/2013			SeqNo: 266058		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	98	5.0	100.0	0	97.9	70	130			
Toluene	100	5.0	100.0	0	101	68.5	128			
Chlorobenzene	99	5.0	100.0	0	99.2	70	130			
1,1-Dichloroethene	110	5.0	100.0	0	106	70	130			
Trichloroethene (TCE)	86	5.0	100.0	0	86.3	61.3	102			
Surr: 1,2-Dichloroethane-d4	48		50.00		97.0	70	130			
Surr: 4-Bromofluorobenzene	44		50.00		87.5	69.5	130			
Surr: Dibromofluoromethane	44		50.00		88.6	70	130			
Surr: Toluene-d8	48		50.00		95.8	70	130			

Sample ID	1303775-001amsd			SampType:	MSD		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	BatchQC			Batch ID:	R9336		RunNo:	9336			
Prep Date:				Analysis Date:	3/21/2013		SeqNo:	266067		Units:	µg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	96	5.0	100.0	0	95.9	70	130	2.06	20		
Toluene	98	5.0	100.0	0	97.7	68.5	128	3.22	20		
Chlorobenzene	93	5.0	100.0	0	92.7	70	130	6.79	20		
1,1-Dichloroethene	100	5.0	100.0	0	101	70	130	4.58	20		
Trichloroethene (TCE)	86	5.0	100.0	0	85.9	61.3	102	0.511	20		
Surr: 1,2-Dichloroethane-d4	51		50.00		102	70	130	0	0		
Surr: 4-Bromofluorobenzene	45		50.00		89.7	69.5	130	0	0		
Surr: Dibromofluoromethane	47		50.00		93.4	70	130	0	0		
Surr: Toluene-d8	51		50.00		102	70	130	0	0		

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R9376			RunNo: 9376					
Prep Date:		Analysis Date: 3/22/2013			SeqNo: 267541		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

RL Reporting Detection Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R9376			RunNo: 9376					
Prep Date:		Analysis Date: 3/22/2013			SeqNo: 267541		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R9376			RunNo: 9376					
Prep Date:		Analysis Date: 3/22/2013			SeqNo: 267541		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.3	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		94.6	69.5	130			
Surr: Dibromofluoromethane	9.1		10.00		91.5	70	130			
Surr: Toluene-d8	9.6		10.00		95.6	70	130			

Sample ID	100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES						
Client ID:	LCSW	Batch ID: R9376		RunNo: 9376						
Prep Date:	Analysis Date: 3/22/2013		SeqNo: 267543		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Toluene	21	1.0	20.00	0	104	80	120			
Chlorobenzene	19	1.0	20.00	0	97.0	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	108	85.8	133			
Trichloroethene (TCE)	19	1.0	20.00	0	97.1	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

RL Reporting Detection Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R9376			RunNo: 9376					
Prep Date:		Analysis Date: 3/22/2013			SeqNo: 267543		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	8.8		10.00		87.6	69.5	130			
Surr: Dibromofluoromethane	9.6		10.00		95.9	70	130			
Surr: Toluene-d8	9.3		10.00		93.1	70	130			

Sample ID	1303823-001ams	SampType: MS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID: R9376			RunNo: 9376					
Prep Date:		Analysis Date: 3/22/2013			SeqNo: 267548		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	37	2.0	40.00	0	92.4	70	130			
Toluene	42	2.0	40.00	3.848	96.3	68.5	128			
Chlorobenzene	39	2.0	40.00	0	97.1	70	130			
1,1-Dichloroethene	41	2.0	40.00	0	102	70	130			
Trichloroethene (TCE)	35	2.0	40.00	0	88.7	61.3	102			
Surr: 1,2-Dichloroethane-d4	20		20.00		99.9	70	130			
Surr: 4-Bromofluorobenzene	19		20.00		93.2	69.5	130			
Surr: Dibromofluoromethane	19		20.00		93.6	70	130			
Surr: Toluene-d8	19		20.00		95.6	70	130			

Sample ID	1303823-001amsd	SampType: MSD		TestCode: EPA Method 8260B: VOLATILES						
Client ID:	BatchQC	Batch ID: R9376		RunNo: 9376						
Prep Date:		Analysis Date: 3/22/2013		SeqNo: 267549			Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	40	2.0	40.00	0	99.9	70	130	7.87	20	
Toluene	39	2.0	40.00	3.848	87.9	68.5	128	8.23	20	
Chlorobenzene	38	2.0	40.00	0	95.6	70	130	1.46	20	
1,1-Dichloroethene	41	2.0	40.00	0	102	70	130	0.381	20	
Trichloroethene (TCE)	37	2.0	40.00	0	91.7	61.3	102	3.28	20	
Surr: 1,2-Dichloroethane-d4	21		20.00		103	70	130	0	0	
Surr: 4-Bromofluorobenzene	18		20.00		90.1	69.5	130	0	0	
Surr: Dibromofluoromethane	19		20.00		97.0	70	130	0	0	
Surr: Toluene-d8	18		20.00		91.1	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	mb-6595	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	6595	RunNo:	9393					
Prep Date:	3/21/2013	Analysis Date:	3/21/2013	SeqNo:	268168	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								
2,4-Dinitrotoluene	ND	10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	mb-6595	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	6595	RunNo:	9393					
Prep Date:	3/21/2013	Analysis Date:	3/21/2013	SeqNo:	268168	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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: 2,4,6-Tribromophenol	160		200.0		79.6	42.9	124			
Surr: 2-Fluorobiphenyl	76		100.0		75.8	40	108			
Surr: 2-Fluorophenol	110		200.0		53.1	23.6	94.8			
Surr: 4-Terphenyl-d14	90		100.0		90.3	41.9	103			
Surr: Nitrobenzene-d5	88		100.0		87.9	42.6	114			
Surr: Phenol-d5	78		200.0		38.9	20.3	74.7			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303777

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	lcs-6595		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 6595		RunNo: 9393					
Prep Date:	3/21/2013		Analysis Date: 3/21/2013		SeqNo: 268169		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	68	10	100.0	0	68.3	43.3	92			
4-Chloro-3-methylphenol	150	10	200.0	0	74.1	46.3	108			
2-Chlorophenol	130	10	200.0	0	62.8	38	99.3			
1,4-Dichlorobenzene	58	10	100.0	0	57.6	30.8	80.6			
2,4-Dinitrotoluene	77	10	100.0	0	76.7	46.1	117			
N-Nitrosodi-n-propylamine	66	10	100.0	0	65.6	39.3	110			
4-Nitrophenol	69	10	200.0	0	34.4	29.8	67			
Pentachlorophenol	120	20	200.0	0	58.2	32.2	95.7			
Phenol	66	10	200.0	0	33.1	27	64.8			
Pyrene	71	10	100.0	0	70.6	44.7	97.3			
1,2,4-Trichlorobenzene	66	10	100.0	0	65.8	36.6	86.7			
Surr: 2,4,6-Tribromophenol	180		200.0		90.6	42.9	124			
Surr: 2-Fluorobiphenyl	69		100.0		69.2	40	108			
Surr: 2-Fluorophenol	100		200.0		51.7	23.6	94.8			
Surr: 4-Terphenyl-d14	88		100.0		88.1	41.9	103			
Surr: Nitrobenzene-d5	80		100.0		80.3	42.6	114			
Surr: Phenol-d5	74		200.0		37.2	20.3	74.7			

Sample ID	lcsd-6595		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles						
Client ID:	LCSS02		Batch ID: 6595		RunNo: 9393						
Prep Date:	3/21/2013		Analysis Date: 3/21/2013		SeqNo: 268170		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Acenaphthene	64	10	100.0	0	63.9	43.3	92	6.66	25		
4-Chloro-3-methylphenol	130	10	200.0	0	66.0	46.3	108	11.6	32.7		
2-Chlorophenol	120	10	200.0	0	61.0	38	99.3	2.91	20		
1,4-Dichlorobenzene	60	10	100.0	0	60.5	30.8	80.6	4.98	20		
2,4-Dinitrotoluene	72	10	100.0	0	72.2	46.1	117	6.02	29.9		
N-Nitrosodi-n-propylamine	69	10	100.0	0	69.1	39.3	110	5.20	23.1		
4-Nitrophenol	76	10	200.0	0	37.9	29.8	67	9.62	40.5		
Pentachlorophenol	110	20	200.0	0	52.9	32.2	95.7	9.67	37.3		
Phenol	74	10	200.0	0	37.2	27	64.8	11.7	20		
Pyrene	73	10	100.0	0	72.9	44.7	97.3	3.15	26.5		
1,2,4-Trichlorobenzene	65	10	100.0	0	64.8	36.6	86.7	1.53	27.2		
Surr: 2,4,6-Tribromophenol	170		200.0		85.5	42.9	124	0	0		
Surr: 2-Fluorobiphenyl	66		100.0		66.3	40	108	0	0		
Surr: 2-Fluorophenol	110		200.0		54.0	23.6	94.8	0	0		
Surr: 4-Terphenyl-d14	82		100.0		81.6	41.9	103	0	0		
Surr: Nitrobenzene-d5	76		100.0		75.5	42.6	114	0	0		
Surr: Phenol-d5	87		200.0		43.3	20.3	74.7	0	0		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 P Sample pH greater than 2
 RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1303777

RcptNo: 1

Received by/date:

Jim 03/20/13

Logged By: Ashley Gallegos

3/20/2013 12:15:00 PM

Completed By: Ashley Gallegos

3/20/2013 3:12:19 PM

Reviewed By:

[Signature] 03/20/13

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
002F, 006F, 003E = ADDED 1mL HNO₃ FOR ACCEPTABLE pH @ 1640
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:

(52 or >12 unless noted)

Adjusted? ☒

Checked by: *[Signature]*

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

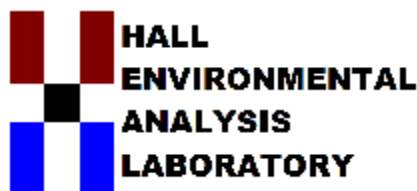
Client Instructions:

17. Additional remarks:

-002F, 006F, 003E = HAND IN LOG IN FOR 24 HOURS AFTER PH

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.6	Good	Yes			



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

March 28, 2013

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 2013 1st Quarter

OrderNo.: 1303774

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 3/20/2013 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. 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. 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.

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 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2013 1st Quarter

Collection Date: 3/19/2013 8:15:00 AM

Lab ID: 1303774-001

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	0.073	0.0020		mg/L	1	3/22/2013 12:52:17 PM
Cadmium	ND	0.0020		mg/L	1	3/22/2013 12:52:17 PM
Chromium	ND	0.0060		mg/L	1	3/22/2013 12:52:17 PM
Copper	ND	0.0060		mg/L	1	3/22/2013 12:52:17 PM
Iron	0.051	0.020		mg/L	1	3/22/2013 12:52:17 PM
Lead	ND	0.0050		mg/L	1	3/22/2013 12:52:17 PM
Manganese	0.023	0.0020		mg/L	1	3/22/2013 12:52:17 PM
Silver	ND	0.0050		mg/L	1	3/22/2013 12:52:17 PM
Zinc	ND	0.010		mg/L	1	3/22/2013 12:52:17 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.078	0.0020		mg/L	1	3/25/2013 6:19:29 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 6:19:29 PM
Chromium	ND	0.0060		mg/L	1	3/25/2013 6:19:29 PM
Copper	ND	0.0060		mg/L	1	3/25/2013 6:19:29 PM
Iron	0.052	0.020		mg/L	1	3/25/2013 6:19:29 PM
Lead	ND	0.0050		mg/L	1	3/25/2013 6:19:29 PM
Manganese	0.020	0.0020		mg/L	1	3/25/2013 6:19:29 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 6:19:29 PM
Zinc	ND	0.010		mg/L	1	3/25/2013 6:19:29 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0011	0.0010		mg/L	1	3/26/2013 12:18:57 PM
Selenium	0.0023	0.0010		mg/L	1	3/26/2013 12:18:57 PM
Uranium	0.054	0.0050	*	mg/L	5	3/26/2013 12:26:29 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	ND	0.0025		mg/L	2.5	3/25/2013 12:27:53 PM
Selenium	ND	0.0025		mg/L	2.5	3/25/2013 12:27:53 PM
Uranium	0.057	0.0025	*	mg/L	2.5	3/27/2013 11:39:14 AM
EPA METHOD 245.1: MERCURY						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	3/25/2013 1:43:45 PM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
Toluene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
Ethylbenzene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
Methyl tert-butyl ether (MTBE)	2000	50		µg/L	50	3/20/2013 8:00:02 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
Naphthalene	ND	10		µg/L	5	3/20/2013 8:32:19 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2013 1st Quarter

Collection Date: 3/19/2013 8:15:00 AM

Lab ID: 1303774-001

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
1-Methylnaphthalene	ND	20		µg/L	5	3/20/2013 8:32:19 PM
2-Methylnaphthalene	ND	20		µg/L	5	3/20/2013 8:32:19 PM
Acetone	ND	50		µg/L	5	3/20/2013 8:32:19 PM
Bromobenzene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
Bromodichloromethane	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
Bromoform	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
Bromomethane	ND	15		µg/L	5	3/20/2013 8:32:19 PM
2-Butanone	ND	50		µg/L	5	3/20/2013 8:32:19 PM
Carbon disulfide	ND	50		µg/L	5	3/20/2013 8:32:19 PM
Carbon Tetrachloride	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
Chlorobenzene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
Chloroethane	ND	10		µg/L	5	3/20/2013 8:32:19 PM
Chloroform	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
Chloromethane	ND	15		µg/L	5	3/20/2013 8:32:19 PM
2-Chlorotoluene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
4-Chlorotoluene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
cis-1,2-DCE	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	3/20/2013 8:32:19 PM
Dibromochloromethane	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
Dibromomethane	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
Dichlorodifluoromethane	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
1,1-Dichloroethane	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
1,1-Dichloroethene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
1,2-Dichloropropane	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
1,3-Dichloropropane	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
2,2-Dichloropropane	ND	10		µg/L	5	3/20/2013 8:32:19 PM
1,1-Dichloropropene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
Hexachlorobutadiene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
2-Hexanone	ND	50		µg/L	5	3/20/2013 8:32:19 PM
Isopropylbenzene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
4-Isopropyltoluene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
4-Methyl-2-pentanone	ND	50		µg/L	5	3/20/2013 8:32:19 PM
Methylene Chloride	ND	15		µg/L	5	3/20/2013 8:32:19 PM
n-Butylbenzene	ND	15		µg/L	5	3/20/2013 8:32:19 PM
n-Propylbenzene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
sec-Butylbenzene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
Styrene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
tert-Butylbenzene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2013 1st Quarter

Collection Date: 3/19/2013 8:15:00 AM

Lab ID: 1303774-001

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	3/20/2013 8:32:19 PM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
trans-1,2-DCE	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
Trichloroethene (TCE)	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
Trichlorofluoromethane	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
1,2,3-Trichloropropane	ND	10		µg/L	5	3/20/2013 8:32:19 PM
Vinyl chloride	ND	5.0		µg/L	5	3/20/2013 8:32:19 PM
Xylenes, Total	ND	7.5		µg/L	5	3/20/2013 8:32:19 PM
Surr: 1,2-Dichloroethane-d4	95.9	70-130		%REC	5	3/20/2013 8:32:19 PM
Surr: 4-Bromofluorobenzene	84.7	69.5-130		%REC	5	3/20/2013 8:32:19 PM
Surr: Dibromofluoromethane	85.6	70-130		%REC	5	3/20/2013 8:32:19 PM
Surr: Toluene-d8	97.8	70-130		%REC	5	3/20/2013 8:32:19 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2013 1st Quarter

Collection Date: 3/19/2013 9:10:00 AM

Lab ID: 1303774-002

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	1.3	0.010		mg/L	5	3/22/2013 12:59:47 PM
Cadmium	ND	0.0020		mg/L	1	3/22/2013 12:57:28 PM
Chromium	ND	0.0060		mg/L	1	3/22/2013 12:57:28 PM
Copper	ND	0.0060		mg/L	1	3/22/2013 12:57:28 PM
Iron	4.1	0.10	*	mg/L	5	3/22/2013 12:59:47 PM
Lead	ND	0.0050		mg/L	1	3/22/2013 12:57:28 PM
Manganese	2.1	0.010	*	mg/L	5	3/22/2013 12:59:47 PM
Silver	ND	0.0050		mg/L	1	3/22/2013 12:57:28 PM
Zinc	ND	0.010		mg/L	1	3/22/2013 12:57:28 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	1.3	0.010		mg/L	5	3/25/2013 6:31:29 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 6:27:55 PM
Chromium	ND	0.0060		mg/L	1	3/25/2013 6:27:55 PM
Copper	ND	0.0060		mg/L	1	3/25/2013 6:27:55 PM
Iron	4.4	0.10	*	mg/L	5	3/25/2013 6:31:29 PM
Lead	ND	0.0050		mg/L	1	3/25/2013 6:27:55 PM
Manganese	2.1	0.010	*	mg/L	5	3/25/2013 6:31:29 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 6:27:55 PM
Zinc	ND	0.010		mg/L	1	3/25/2013 6:27:55 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0093	0.0050		mg/L	5	3/27/2013 2:34:55 PM
Selenium	0.0045	0.0010		mg/L	1	3/21/2013 1:52:01 PM
Uranium	0.0087	0.0010		mg/L	1	3/21/2013 1:52:01 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.010	0.0025	*	mg/L	2.5	3/25/2013 12:29:45 PM
Selenium	0.0038	0.0025		mg/L	2.5	3/25/2013 12:29:45 PM
Uranium	0.0090	0.0025		mg/L	2.5	3/27/2013 11:41:06 AM
EPA METHOD 245.1: MERCURY						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	3/22/2013 10:00:56 AM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	2800	100		µg/L	100	3/20/2013 9:36:53 PM
Toluene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
Ethylbenzene	65	10		µg/L	10	3/20/2013 10:09:13 PM
Methyl tert-butyl ether (MTBE)	1300	10		µg/L	10	3/20/2013 10:09:13 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	3/20/2013 10:09:13 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	3/20/2013 10:09:13 PM
Naphthalene	ND	20		µg/L	10	3/20/2013 10:09:13 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2013 1st Quarter

Collection Date: 3/19/2013 9:10:00 AM

Lab ID: 1303774-002

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
1-Methylnaphthalene	ND	40		µg/L	10	3/20/2013 10:09:13 PM
2-Methylnaphthalene	ND	40		µg/L	10	3/20/2013 10:09:13 PM
Acetone	ND	100		µg/L	10	3/20/2013 10:09:13 PM
Bromobenzene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
Bromodichloromethane	ND	10		µg/L	10	3/20/2013 10:09:13 PM
Bromoform	ND	10		µg/L	10	3/20/2013 10:09:13 PM
Bromomethane	ND	30		µg/L	10	3/20/2013 10:09:13 PM
2-Butanone	ND	100		µg/L	10	3/20/2013 10:09:13 PM
Carbon disulfide	ND	100		µg/L	10	3/20/2013 10:09:13 PM
Carbon Tetrachloride	ND	10		µg/L	10	3/20/2013 10:09:13 PM
Chlorobenzene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
Chloroethane	ND	20		µg/L	10	3/20/2013 10:09:13 PM
Chloroform	ND	10		µg/L	10	3/20/2013 10:09:13 PM
Chloromethane	ND	30		µg/L	10	3/20/2013 10:09:13 PM
2-Chlorotoluene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
4-Chlorotoluene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
cis-1,2-DCE	ND	10		µg/L	10	3/20/2013 10:09:13 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	3/20/2013 10:09:13 PM
Dibromochloromethane	ND	10		µg/L	10	3/20/2013 10:09:13 PM
Dibromomethane	ND	10		µg/L	10	3/20/2013 10:09:13 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
Dichlorodifluoromethane	ND	10		µg/L	10	3/20/2013 10:09:13 PM
1,1-Dichloroethane	ND	10		µg/L	10	3/20/2013 10:09:13 PM
1,1-Dichloroethene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
1,2-Dichloropropane	ND	10		µg/L	10	3/20/2013 10:09:13 PM
1,3-Dichloropropane	ND	10		µg/L	10	3/20/2013 10:09:13 PM
2,2-Dichloropropane	ND	20		µg/L	10	3/20/2013 10:09:13 PM
1,1-Dichloropropene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
Hexachlorobutadiene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
2-Hexanone	ND	100		µg/L	10	3/20/2013 10:09:13 PM
Isopropylbenzene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
4-Isopropyltoluene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	3/20/2013 10:09:13 PM
Methylene Chloride	ND	30		µg/L	10	3/20/2013 10:09:13 PM
n-Butylbenzene	ND	30		µg/L	10	3/20/2013 10:09:13 PM
n-Propylbenzene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
sec-Butylbenzene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
Styrene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
tert-Butylbenzene	ND	10		µg/L	10	3/20/2013 10:09:13 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2013 1st Quarter

Collection Date: 3/19/2013 9:10:00 AM

Lab ID: 1303774-002

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	3/20/2013 10:09:13 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	3/20/2013 10:09:13 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	3/20/2013 10:09:13 PM
trans-1,2-DCE	ND	10		µg/L	10	3/20/2013 10:09:13 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	3/20/2013 10:09:13 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	3/20/2013 10:09:13 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	3/20/2013 10:09:13 PM
Trichloroethene (TCE)	ND	10		µg/L	10	3/20/2013 10:09:13 PM
Trichlorofluoromethane	ND	10		µg/L	10	3/20/2013 10:09:13 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	3/20/2013 10:09:13 PM
Vinyl chloride	ND	10		µg/L	10	3/20/2013 10:09:13 PM
Xylenes, Total	ND	15		µg/L	10	3/20/2013 10:09:13 PM
Surr: 1,2-Dichloroethane-d4	107	70-130		%REC	10	3/20/2013 10:09:13 PM
Surr: 4-Bromofluorobenzene	94.9	69.5-130		%REC	10	3/20/2013 10:09:13 PM
Surr: Dibromofluoromethane	98.0	70-130		%REC	10	3/20/2013 10:09:13 PM
Surr: Toluene-d8	97.2	70-130		%REC	10	3/20/2013 10:09:13 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2013 1st Quarter

Collection Date: 3/19/2013 10:20:00 AM

Lab ID: 1303774-003

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	0.054	0.0020		mg/L	1	3/22/2013 1:11:59 PM
Cadmium	ND	0.0020		mg/L	1	3/22/2013 1:11:59 PM
Chromium	ND	0.0060		mg/L	1	3/22/2013 1:11:59 PM
Copper	ND	0.0060		mg/L	1	3/22/2013 1:11:59 PM
Iron	0.34	0.020	*	mg/L	1	3/22/2013 1:11:59 PM
Lead	ND	0.0050		mg/L	1	3/22/2013 1:11:59 PM
Manganese	0.27	0.0020	*	mg/L	1	3/22/2013 1:11:59 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 10:48:46 AM
Zinc	ND	0.010		mg/L	1	3/22/2013 1:11:59 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.059	0.0020		mg/L	1	3/25/2013 6:35:39 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 6:35:39 PM
Chromium	ND	0.0060		mg/L	1	3/25/2013 6:35:39 PM
Copper	ND	0.0060		mg/L	1	3/25/2013 6:35:39 PM
Iron	0.47	0.020	*	mg/L	1	3/25/2013 6:35:39 PM
Lead	ND	0.0050		mg/L	1	3/25/2013 6:35:39 PM
Manganese	0.29	0.0020	*	mg/L	1	3/25/2013 6:35:39 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 6:35:39 PM
Zinc	ND	0.010		mg/L	1	3/25/2013 6:35:39 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0010	0.0010		mg/L	1	3/21/2013 1:55:56 PM
Selenium	0.0011	0.0010		mg/L	1	3/21/2013 1:55:56 PM
Uranium	0.054	0.0050	*	mg/L	5	3/26/2013 12:22:43 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	ND	0.0025		mg/L	2.5	3/25/2013 12:31:37 PM
Selenium	ND	0.0025		mg/L	2.5	3/25/2013 12:31:37 PM
Uranium	0.057	0.0025	*	mg/L	2.5	3/27/2013 11:42:58 AM
EPA METHOD 245.1: MERCURY						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	3/22/2013 10:02:44 AM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
Toluene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
Ethylbenzene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
Methyl tert-butyl ether (MTBE)	1100	10		µg/L	10	3/20/2013 11:13:43 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
Naphthalene	ND	2.0		µg/L	1	3/20/2013 11:46:09 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2013 1st Quarter

Collection Date: 3/19/2013 10:20:00 AM

Lab ID: 1303774-003

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
1-Methylnaphthalene	ND	4.0		µg/L	1	3/20/2013 11:46:09 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/20/2013 11:46:09 PM
Acetone	ND	10		µg/L	1	3/20/2013 11:46:09 PM
Bromobenzene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
Bromodichloromethane	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
Bromoform	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
Bromomethane	ND	3.0		µg/L	1	3/20/2013 11:46:09 PM
2-Butanone	ND	10		µg/L	1	3/20/2013 11:46:09 PM
Carbon disulfide	ND	10		µg/L	1	3/20/2013 11:46:09 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
Chlorobenzene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
Chloroethane	ND	2.0		µg/L	1	3/20/2013 11:46:09 PM
Chloroform	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
Chloromethane	ND	3.0		µg/L	1	3/20/2013 11:46:09 PM
2-Chlorotoluene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
4-Chlorotoluene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
cis-1,2-DCE	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/20/2013 11:46:09 PM
Dibromochloromethane	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
Dibromomethane	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	3/20/2013 11:46:09 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
2-Hexanone	ND	10		µg/L	1	3/20/2013 11:46:09 PM
Isopropylbenzene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	3/20/2013 11:46:09 PM
Methylene Chloride	ND	3.0		µg/L	1	3/20/2013 11:46:09 PM
n-Butylbenzene	ND	3.0		µg/L	1	3/20/2013 11:46:09 PM
n-Propylbenzene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
sec-Butylbenzene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
Styrene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
tert-Butylbenzene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2013 1st Quarter

Collection Date: 3/19/2013 10:20:00 AM

Lab ID: 1303774-003

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/20/2013 11:46:09 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
trans-1,2-DCE	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/20/2013 11:46:09 PM
Vinyl chloride	ND	1.0		µg/L	1	3/20/2013 11:46:09 PM
Xylenes, Total	ND	1.5		µg/L	1	3/20/2013 11:46:09 PM
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	3/20/2013 11:46:09 PM
Surr: 4-Bromofluorobenzene	89.2	69.5-130		%REC	1	3/20/2013 11:46:09 PM
Surr: Dibromofluoromethane	92.9	70-130		%REC	1	3/20/2013 11:46:09 PM
Surr: Toluene-d8	102	70-130		%REC	1	3/20/2013 11:46:09 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2013 1st Quarter

Collection Date: 3/19/2013 12:00:00 PM

Lab ID: 1303774-004

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	0.018	0.0020		mg/L	1	3/22/2013 1:16:53 PM
Cadmium	ND	0.0020		mg/L	1	3/22/2013 1:16:53 PM
Chromium	ND	0.0060		mg/L	1	3/22/2013 1:16:53 PM
Copper	ND	0.0060		mg/L	1	3/22/2013 1:16:53 PM
Iron	ND	0.020		mg/L	1	3/22/2013 1:16:53 PM
Lead	ND	0.0050		mg/L	1	3/22/2013 1:16:53 PM
Manganese	0.019	0.0020		mg/L	1	3/22/2013 1:16:53 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 10:50:49 AM
Zinc	ND	0.010		mg/L	1	3/22/2013 1:16:53 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.018	0.0020		mg/L	1	3/25/2013 6:44:03 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 6:44:03 PM
Chromium	ND	0.0060		mg/L	1	3/25/2013 6:44:03 PM
Copper	ND	0.0060		mg/L	1	3/25/2013 6:44:03 PM
Iron	ND	0.020		mg/L	1	3/25/2013 6:44:03 PM
Lead	ND	0.0050		mg/L	1	3/25/2013 6:44:03 PM
Manganese	0.021	0.0020		mg/L	1	3/25/2013 6:44:03 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 6:44:03 PM
Zinc	ND	0.010		mg/L	1	3/25/2013 6:44:03 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	3/21/2013 4:44:25 PM
Selenium	ND	0.0010		mg/L	1	3/21/2013 4:44:25 PM
Uranium	0.017	0.0010		mg/L	1	3/26/2013 12:34:02 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	ND	0.0025		mg/L	2.5	3/25/2013 12:33:29 PM
Selenium	ND	0.0025		mg/L	2.5	3/25/2013 12:33:29 PM
Uranium	0.018	0.0025		mg/L	2.5	3/27/2013 11:44:50 AM
EPA METHOD 245.1: MERCURY						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	3/22/2013 10:04:32 AM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
Toluene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
Ethylbenzene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
Methyl tert-butyl ether (MTBE)	12	1.0		µg/L	1	3/21/2013 12:50:40 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
Naphthalene	ND	2.0		µg/L	1	3/21/2013 12:50:40 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2013 1st Quarter

Collection Date: 3/19/2013 12:00:00 PM

Lab ID: 1303774-004

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
1-Methylnaphthalene	ND	4.0		µg/L	1	3/21/2013 12:50:40 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/21/2013 12:50:40 AM
Acetone	ND	10		µg/L	1	3/21/2013 12:50:40 AM
Bromobenzene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
Bromodichloromethane	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
Bromoform	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
Bromomethane	ND	3.0		µg/L	1	3/21/2013 12:50:40 AM
2-Butanone	ND	10		µg/L	1	3/21/2013 12:50:40 AM
Carbon disulfide	ND	10		µg/L	1	3/21/2013 12:50:40 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
Chlorobenzene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
Chloroethane	ND	2.0		µg/L	1	3/21/2013 12:50:40 AM
Chloroform	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
Chloromethane	ND	3.0		µg/L	1	3/21/2013 12:50:40 AM
2-Chlorotoluene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
4-Chlorotoluene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
cis-1,2-DCE	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/21/2013 12:50:40 AM
Dibromochloromethane	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
Dibromomethane	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	3/21/2013 12:50:40 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
2-Hexanone	ND	10		µg/L	1	3/21/2013 12:50:40 AM
Isopropylbenzene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	3/21/2013 12:50:40 AM
Methylene Chloride	ND	3.0		µg/L	1	3/21/2013 12:50:40 AM
n-Butylbenzene	ND	3.0		µg/L	1	3/21/2013 12:50:40 AM
n-Propylbenzene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
sec-Butylbenzene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
Styrene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
tert-Butylbenzene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2013 1st Quarter

Collection Date: 3/19/2013 12:00:00 PM

Lab ID: 1303774-004

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/21/2013 12:50:40 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
trans-1,2-DCE	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/21/2013 12:50:40 AM
Vinyl chloride	ND	1.0		µg/L	1	3/21/2013 12:50:40 AM
Xylenes, Total	ND	1.5		µg/L	1	3/21/2013 12:50:40 AM
Surr: 1,2-Dichloroethane-d4	98.2	70-130		%REC	1	3/21/2013 12:50:40 AM
Surr: 4-Bromofluorobenzene	92.0	69.5-130		%REC	1	3/21/2013 12:50:40 AM
Surr: Dibromofluoromethane	91.0	70-130		%REC	1	3/21/2013 12:50:40 AM
Surr: Toluene-d8	103	70-130		%REC	1	3/21/2013 12:50:40 AM

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2013 1st Quarter

Collection Date: 3/19/2013 1:20:00 PM

Lab ID: 1303774-005

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: MMD
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/22/2013 5:46:39 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2013 5:46:39 PM
Surr: DNOP	114	75.4-146		%REC	1	3/22/2013 5:46:39 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/22/2013 11:27:22 AM
Surr: BFB	84.1	51.9-148		%REC	1	3/22/2013 11:27:22 AM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	ND	0.50		mg/L	5	3/25/2013 2:13:45 PM
Chloride	70	2.5		mg/L	5	3/25/2013 2:13:45 PM
Bromide	ND	0.50		mg/L	5	3/25/2013 2:13:45 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	3/25/2013 2:13:45 PM
Sulfate	200	2.5		mg/L	5	3/25/2013 2:13:45 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	3/25/2013 2:50:59 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	0.030	0.0020		mg/L	1	3/22/2013 1:21:55 PM
Cadmium	ND	0.0020		mg/L	1	3/22/2013 1:21:55 PM
Calcium	2.0	1.0		mg/L	1	3/22/2013 1:21:55 PM
Chromium	ND	0.0060		mg/L	1	3/22/2013 1:21:55 PM
Copper	ND	0.0060		mg/L	1	3/22/2013 1:21:55 PM
Iron	ND	0.020		mg/L	1	3/22/2013 1:21:55 PM
Lead	ND	0.0050		mg/L	1	3/22/2013 1:21:55 PM
Magnesium	ND	1.0		mg/L	1	3/22/2013 1:21:55 PM
Manganese	ND	0.0020		mg/L	1	3/22/2013 1:21:55 PM
Potassium	ND	1.0		mg/L	1	3/22/2013 1:21:55 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 10:53:15 AM
Sodium	290	5.0		mg/L	5	3/22/2013 1:24:29 PM
Zinc	0.037	0.010		mg/L	1	3/22/2013 1:21:55 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.035	0.0020		mg/L	1	3/25/2013 6:52:16 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 6:52:16 PM
Chromium	ND	0.0060		mg/L	1	3/25/2013 6:52:16 PM
Copper	ND	0.0060		mg/L	1	3/25/2013 6:52:16 PM
Iron	0.088	0.020		mg/L	1	3/25/2013 6:52:16 PM
Lead	ND	0.0050		mg/L	1	3/25/2013 6:52:16 PM
Manganese	0.0074	0.0020		mg/L	1	3/25/2013 6:52:16 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 6:52:16 PM
Zinc	ND	0.010		mg/L	1	3/25/2013 6:52:16 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0013	0.0010		mg/L	1	3/21/2013 4:52:01 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2013 1st Quarter

Collection Date: 3/19/2013 1:20:00 PM

Lab ID: 1303774-005

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Selenium	0.0036	0.0010		mg/L	1	3/21/2013 4:52:01 PM
Uranium	0.044	0.0050	*	mg/L	5	3/26/2013 12:37:57 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	ND	0.0025		mg/L	2.5	3/25/2013 12:35:21 PM
Selenium	0.0032	0.0025		mg/L	2.5	3/25/2013 12:35:21 PM
Uranium	0.044	0.0025	*	mg/L	2.5	3/27/2013 11:46:42 AM
EPA METHOD 245.1: MERCURY						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	3/22/2013 10:06:20 AM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
Toluene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
Ethylbenzene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
Naphthalene	ND	2.0		µg/L	1	3/21/2013 3:32:25 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/21/2013 3:32:25 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/21/2013 3:32:25 AM
Acetone	ND	10		µg/L	1	3/21/2013 3:32:25 AM
Bromobenzene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
Bromodichloromethane	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
Bromoform	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
Bromomethane	ND	3.0		µg/L	1	3/21/2013 3:32:25 AM
2-Butanone	ND	10		µg/L	1	3/21/2013 3:32:25 AM
Carbon disulfide	ND	10		µg/L	1	3/21/2013 3:32:25 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
Chlorobenzene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
Chloroethane	ND	2.0		µg/L	1	3/21/2013 3:32:25 AM
Chloroform	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
Chloromethane	ND	3.0		µg/L	1	3/21/2013 3:32:25 AM
2-Chlorotoluene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
4-Chlorotoluene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
cis-1,2-DCE	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/21/2013 3:32:25 AM
Dibromochloromethane	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
Dibromomethane	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2013 1st Quarter

Collection Date: 3/19/2013 1:20:00 PM

Lab ID: 1303774-005

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	3/21/2013 3:32:25 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
2-Hexanone	ND	10		µg/L	1	3/21/2013 3:32:25 AM
Isopropylbenzene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	3/21/2013 3:32:25 AM
Methylene Chloride	ND	3.0		µg/L	1	3/21/2013 3:32:25 AM
n-Butylbenzene	ND	3.0		µg/L	1	3/21/2013 3:32:25 AM
n-Propylbenzene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
sec-Butylbenzene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
Styrene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
tert-Butylbenzene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/21/2013 3:32:25 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
trans-1,2-DCE	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/21/2013 3:32:25 AM
Vinyl chloride	ND	1.0		µg/L	1	3/21/2013 3:32:25 AM
Xylenes, Total	ND	1.5		µg/L	1	3/21/2013 3:32:25 AM
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%REC	1	3/21/2013 3:32:25 AM
Surr: 4-Bromofluorobenzene	87.3	69.5-130		%REC	1	3/21/2013 3:32:25 AM
Surr: Dibromofluoromethane	87.8	70-130		%REC	1	3/21/2013 3:32:25 AM
Surr: Toluene-d8	93.9	70-130		%REC	1	3/21/2013 3:32:25 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2013 1st Quarter

Collection Date: 3/19/2013 2:25:00 PM

Lab ID: 1303774-006

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: MMD
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/22/2013 6:14:08 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2013 6:14:08 PM
Surr: DNOP	113	75.4-146		%REC	1	3/22/2013 6:14:08 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	0.11	0.050		mg/L	1	3/22/2013 11:56:00 AM
Surr: BFB	92.2	51.9-148		%REC	1	3/22/2013 11:56:00 AM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	ND	0.50		mg/L	5	3/25/2013 3:15:49 PM
Chloride	1700	100		mg/L	200	3/25/2013 3:40:38 PM
Bromide	ND	0.50		mg/L	5	3/25/2013 3:15:49 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	3/25/2013 3:15:49 PM
Sulfate	230	2.5		mg/L	5	3/25/2013 3:15:49 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	3/25/2013 3:53:02 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	0.10	0.0020		mg/L	1	3/22/2013 1:26:48 PM
Cadmium	ND	0.0020		mg/L	1	3/22/2013 1:26:48 PM
Calcium	220	5.0		mg/L	5	3/22/2013 1:29:24 PM
Chromium	ND	0.0060		mg/L	1	3/22/2013 1:26:48 PM
Copper	ND	0.0060		mg/L	1	3/22/2013 1:26:48 PM
Iron	ND	0.020		mg/L	1	3/22/2013 1:26:48 PM
Lead	ND	0.0050		mg/L	1	3/22/2013 1:26:48 PM
Magnesium	35	1.0		mg/L	1	3/22/2013 1:26:48 PM
Manganese	0.15	0.0020	*	mg/L	1	3/22/2013 1:26:48 PM
Potassium	2.3	1.0		mg/L	1	3/22/2013 1:26:48 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 10:55:39 AM
Sodium	900	20		mg/L	20	3/25/2013 10:58:19 AM
Zinc	ND	0.010		mg/L	1	3/22/2013 1:26:48 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.11	0.0020		mg/L	1	3/25/2013 7:12:52 PM
Cadmium	ND	0.0020		mg/L	1	3/25/2013 7:12:52 PM
Chromium	ND	0.0060		mg/L	1	3/25/2013 7:12:52 PM
Copper	ND	0.0060		mg/L	1	3/25/2013 7:12:52 PM
Iron	ND	0.020		mg/L	1	3/25/2013 7:12:52 PM
Lead	ND	0.0050		mg/L	1	3/25/2013 7:12:52 PM
Manganese	0.16	0.0020	*	mg/L	1	3/25/2013 7:12:52 PM
Silver	ND	0.0050		mg/L	1	3/25/2013 7:12:52 PM
Zinc	ND	0.010		mg/L	1	3/25/2013 7:12:52 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	3/26/2013 12:53:02 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2013 1st Quarter

Collection Date: 3/19/2013 2:25:00 PM

Lab ID: 1303774-006

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Selenium	0.015	0.0050		mg/L	5	3/26/2013 12:53:02 PM
Uranium	0.073	0.0050	*	mg/L	5	3/26/2013 12:53:02 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	ND	0.0025		mg/L	2.5	3/25/2013 12:37:13 PM
Selenium	0.0098	0.0025		mg/L	2.5	3/25/2013 12:37:13 PM
Uranium	0.077	0.0050	*	mg/L	5	3/27/2013 12:28:55 PM
EPA METHOD 245.1: MERCURY						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	3/22/2013 10:08:08 AM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
Toluene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
Ethylbenzene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
Methyl tert-butyl ether (MTBE)	170	1.0		µg/L	1	3/21/2013 4:37:09 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
1,2-Dichloroethane (EDC)	1.3	1.0		µg/L	1	3/21/2013 4:37:09 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
Naphthalene	ND	2.0		µg/L	1	3/21/2013 4:37:09 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/21/2013 4:37:09 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/21/2013 4:37:09 AM
Acetone	ND	10		µg/L	1	3/21/2013 4:37:09 AM
Bromobenzene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
Bromodichloromethane	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
Bromoform	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
Bromomethane	ND	3.0		µg/L	1	3/21/2013 4:37:09 AM
2-Butanone	ND	10		µg/L	1	3/21/2013 4:37:09 AM
Carbon disulfide	ND	10		µg/L	1	3/21/2013 4:37:09 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
Chlorobenzene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
Chloroethane	ND	2.0		µg/L	1	3/21/2013 4:37:09 AM
Chloroform	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
Chloromethane	ND	3.0		µg/L	1	3/21/2013 4:37:09 AM
2-Chlorotoluene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
4-Chlorotoluene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
cis-1,2-DCE	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/21/2013 4:37:09 AM
Dibromochloromethane	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
Dibromomethane	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2013 1st Quarter

Collection Date: 3/19/2013 2:25:00 PM

Lab ID: 1303774-006

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
1,1-Dichloroethane	1.5	1.0		µg/L	1	3/21/2013 4:37:09 AM
1,1-Dichloroethene	1.9	1.0		µg/L	1	3/21/2013 4:37:09 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	3/21/2013 4:37:09 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
2-Hexanone	ND	10		µg/L	1	3/21/2013 4:37:09 AM
Isopropylbenzene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	3/21/2013 4:37:09 AM
Methylene Chloride	ND	3.0		µg/L	1	3/21/2013 4:37:09 AM
n-Butylbenzene	ND	3.0		µg/L	1	3/21/2013 4:37:09 AM
n-Propylbenzene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
sec-Butylbenzene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
Styrene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
tert-Butylbenzene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/21/2013 4:37:09 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
trans-1,2-DCE	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/21/2013 4:37:09 AM
Vinyl chloride	ND	1.0		µg/L	1	3/21/2013 4:37:09 AM
Xylenes, Total	ND	1.5		µg/L	1	3/21/2013 4:37:09 AM
Surr: 1,2-Dichloroethane-d4	98.3	70-130		%REC	1	3/21/2013 4:37:09 AM
Surr: 4-Bromofluorobenzene	90.8	69.5-130		%REC	1	3/21/2013 4:37:09 AM
Surr: Dibromofluoromethane	88.7	70-130		%REC	1	3/21/2013 4:37:09 AM
Surr: Toluene-d8	94.0	70-130		%REC	1	3/21/2013 4:37:09 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 1st Quarter

Collection Date:

Lab ID: 1303774-007

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
Toluene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
Ethylbenzene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
Naphthalene	ND	2.0		µg/L	1	3/21/2013 5:41:48 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/21/2013 5:41:48 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/21/2013 5:41:48 AM
Acetone	ND	10		µg/L	1	3/21/2013 5:41:48 AM
Bromobenzene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
Bromodichloromethane	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
Bromoform	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
Bromomethane	ND	3.0		µg/L	1	3/21/2013 5:41:48 AM
2-Butanone	ND	10		µg/L	1	3/21/2013 5:41:48 AM
Carbon disulfide	ND	10		µg/L	1	3/21/2013 5:41:48 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
Chlorobenzene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
Chloroethane	ND	2.0		µg/L	1	3/21/2013 5:41:48 AM
Chloroform	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
Chloromethane	ND	3.0		µg/L	1	3/21/2013 5:41:48 AM
2-Chlorotoluene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
4-Chlorotoluene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
cis-1,2-DCE	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/21/2013 5:41:48 AM
Dibromochloromethane	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
Dibromomethane	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	3/21/2013 5:41:48 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
2-Hexanone	ND	10		µg/L	1	3/21/2013 5:41:48 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 1st Quarter

Collection Date:

Lab ID: 1303774-007

Matrix: AQUEOUS

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Isopropylbenzene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	3/21/2013 5:41:48 AM
Methylene Chloride	ND	3.0		µg/L	1	3/21/2013 5:41:48 AM
n-Butylbenzene	ND	3.0		µg/L	1	3/21/2013 5:41:48 AM
n-Propylbenzene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
sec-Butylbenzene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
Styrene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
tert-Butylbenzene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/21/2013 5:41:48 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
trans-1,2-DCE	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/21/2013 5:41:48 AM
Vinyl chloride	ND	1.0		µg/L	1	3/21/2013 5:41:48 AM
Xylenes, Total	ND	1.5		µg/L	1	3/21/2013 5:41:48 AM
Surr: 1,2-Dichloroethane-d4	94.1	70-130		%REC	1	3/21/2013 5:41:48 AM
Surr: 4-Bromofluorobenzene	88.9	69.5-130		%REC	1	3/21/2013 5:41:48 AM
Surr: Dibromofluoromethane	88.5	70-130		%REC	1	3/21/2013 5:41:48 AM
Surr: Toluene-d8	95.2	70-130		%REC	1	3/21/2013 5:41:48 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 1st Quarter

Collection Date:

Lab ID: 1303774-008

Matrix: TRIP BLANK

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
Toluene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
Ethylbenzene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
Naphthalene	ND	2.0		µg/L	1	3/21/2013 6:14:05 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/21/2013 6:14:05 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/21/2013 6:14:05 AM
Acetone	ND	10		µg/L	1	3/21/2013 6:14:05 AM
Bromobenzene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
Bromodichloromethane	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
Bromoform	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
Bromomethane	ND	3.0		µg/L	1	3/21/2013 6:14:05 AM
2-Butanone	ND	10		µg/L	1	3/21/2013 6:14:05 AM
Carbon disulfide	ND	10		µg/L	1	3/21/2013 6:14:05 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
Chlorobenzene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
Chloroethane	ND	2.0		µg/L	1	3/21/2013 6:14:05 AM
Chloroform	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
Chloromethane	ND	3.0		µg/L	1	3/21/2013 6:14:05 AM
2-Chlorotoluene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
4-Chlorotoluene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
cis-1,2-DCE	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/21/2013 6:14:05 AM
Dibromochloromethane	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
Dibromomethane	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	3/21/2013 6:14:05 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
2-Hexanone	ND	10		µg/L	1	3/21/2013 6:14:05 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303774

Date Reported: 3/28/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 1st Quarter

Collection Date:

Lab ID: 1303774-008

Matrix: TRIP BLANK

Received Date: 3/20/2013 12:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Isopropylbenzene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	3/21/2013 6:14:05 AM
Methylene Chloride	ND	3.0		µg/L	1	3/21/2013 6:14:05 AM
n-Butylbenzene	ND	3.0		µg/L	1	3/21/2013 6:14:05 AM
n-Propylbenzene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
sec-Butylbenzene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
Styrene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
tert-Butylbenzene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/21/2013 6:14:05 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
trans-1,2-DCE	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/21/2013 6:14:05 AM
Vinyl chloride	ND	1.0		µg/L	1	3/21/2013 6:14:05 AM
Xylenes, Total	ND	1.5		µg/L	1	3/21/2013 6:14:05 AM
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	3/21/2013 6:14:05 AM
Surr: 4-Bromofluorobenzene	92.0	69.5-130		%REC	1	3/21/2013 6:14:05 AM
Surr: Dibromofluoromethane	94.1	70-130		%REC	1	3/21/2013 6:14:05 AM
Surr: Toluene-d8	102	70-130		%REC	1	3/21/2013 6:14:05 AM

Qualifiers:

* Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 P Sample pH greater than 2
 RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R9363	RunNo:	9363					
Prep Date:	2/22/2013	Analysis Date:	3/22/2013	SeqNo:	266876	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								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R9363	RunNo:	9363					
Prep Date:		Analysis Date:	3/22/2013	SeqNo:	266877	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.6	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Calcium	47	1.0	50.00	0	94.4	85	115			
Chromium	0.52	0.0060	0.5000	0	103	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.48	0.020	0.5000	0	96.2	85	115			
Lead	0.51	0.0050	0.5000	0	101	85	115			
Magnesium	47	1.0	50.00	0	94.9	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Potassium	46	1.0	50.00	0	92.9	85	115			
Silver	0.11	0.0050	0.1000	0	106	85	115			
Sodium	47	1.0	50.00	0	93.8	85	115			
Zinc	0.51	0.010	0.5000	0	102	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R9390	RunNo:	9390					
Prep Date:	2/22/2013	Analysis Date:	3/25/2013	SeqNo:	268037	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								
Sodium	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup**Project:** 2013 1st Quarter

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R9390		RunNo: 9390					
Prep Date:			Analysis Date: 3/25/2013		SeqNo: 268038		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.11	0.0050	0.1000	0	105	85	115			
Sodium	43	1.0	50.00	0	85.2	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303777-006FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268719		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.39	0.0020	0.5000	0	78.3	70	130			
Chromium	0.51	0.0060	0.5000	0.1315	76.5	70	130			
Copper	0.57	0.0060	0.5000	0.1646	81.2	70	130			
Silver	0.086	0.0050	0.1000	0	86.4	70	130			

Sample ID	1303777-006FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268720		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.39	0.0020	0.5000	0	78.8	70	130	0.619	20	
Chromium	0.51	0.0060	0.5000	0.1315	76.0	70	130	0.419	20	
Copper	0.57	0.0060	0.5000	0.1646	80.6	70	130	0.517	20	
Silver	0.086	0.0050	0.1000	0	85.6	70	130	0.942	20	

Sample ID	1303777-006FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268725		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.48	0.025	0.5000	0.09730	76.8	70	130			

Sample ID	1303777-006FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268726		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.50	0.025	0.5000	0.09730	81.3	70	130	4.56	20	

Sample ID	MB-6621	SampType: MBLK			TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID: 6621			RunNo: 9412					
Prep Date:	3/22/2013	Analysis Date: 3/25/2013			SeqNo: 268747		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								
Lead	ND	0.0050								
Manganese	ND	0.0020								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 P Sample pH greater than 2
 RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB-6621		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268747		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-6621		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 6621		RunNo: 9412					
Prep Date:	3/22/2013		Analysis Date: 3/25/2013		SeqNo: 268748		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.1	85	115			
Cadmium	0.49	0.0020	0.5000	0	97.4	85	115			
Chromium	0.49	0.0060	0.5000	0	97.5	85	115			
Copper	0.47	0.0060	0.5000	0	95.0	85	115			
Iron	0.50	0.020	0.5000	0	99.3	85	115			
Lead	0.49	0.0050	0.5000	0	98.4	85	115			
Manganese	0.48	0.0020	0.5000	0	95.2	85	115			
Silver	0.099	0.0050	0.1000	0	99.2	85	115			
Zinc	0.48	0.010	0.5000	0	96.1	85	115			

Sample ID	1303777-006FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 6621		RunNo: 9432					
Prep Date:	3/22/2013		Analysis Date: 3/26/2013		SeqNo: 269299		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	4.4	0.010	0.5000	3.849	103	70	130			
Zinc	1.5	0.050	0.5000	1.108	88.1	70	130			

Sample ID	1303777-006FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 6621		RunNo: 9432					
Prep Date:	3/22/2013		Analysis Date: 3/26/2013		SeqNo: 269300		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	4.4	0.010	0.5000	3.849	118	70	130	1.70	20	
Zinc	1.6	0.050	0.5000	1.108	93.3	70	130	1.68	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R9333		RunNo: 9333					
Prep Date:			Analysis Date: 3/21/2013		SeqNo: 266040		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			
Selenium	0.023	0.0010	0.02500	0	92.0	85	115			
Uranium	0.025	0.0010	0.02500	0	98.5	85	115			

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R9333		RunNo: 9333					
Prep Date:			Analysis Date: 3/21/2013		SeqNo: 266041		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	1303777-007EMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R9334		RunNo: 9334					
Prep Date:			Analysis Date: 3/21/2013		SeqNo: 266100		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0010	0.02500	0.001577	108	70	130			
Selenium	0.030	0.0010	0.02500	0.003405	107	70	130			

Sample ID	1303779-001CMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R9334		RunNo: 9334					
Prep Date:			Analysis Date: 3/21/2013		SeqNo: 266102		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.003775	101	70	130			
Selenium	0.12	0.0050	0.1250	0.01323	88.1	70	130			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R9334		RunNo: 9334					
Prep Date:			Analysis Date: 3/21/2013		SeqNo: 266106		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.8	85	115			
Selenium	0.023	0.0010	0.02500	0	90.7	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R9334	RunNo:	9334					
Prep Date:		Analysis Date:	3/21/2013	SeqNo:	266107	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:	R9420	RunNo:	9420					
Prep Date:		Analysis Date:	3/26/2013	SeqNo:	268976	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	102	85	115			
Selenium	0.025	0.0010	0.02500	0	99.5	85	115			
Uranium	0.026	0.0010	0.02500	.00001518	102	85	115			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R9420	RunNo:	9420					
Prep Date:		Analysis Date:	3/26/2013	SeqNo:	268977	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	102	85	115			
Selenium	0.025	0.0010	0.02500	0	99.0	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R9420	RunNo:	9420					
Prep Date:		Analysis Date:	3/26/2013	SeqNo:	268978	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R9420	RunNo:	9420					
Prep Date:		Analysis Date:	3/26/2013	SeqNo:	268979	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303779-001CMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R9420		RunNo: 9420					
Prep Date:			Analysis Date: 3/26/2013		SeqNo: 269165		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.14	0.0050	0.1250	0.0004594	110	70	130			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R9463		RunNo: 9463					
Prep Date:			Analysis Date: 3/27/2013		SeqNo: 270155		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	98.1	85	115			

Sample ID	MB	SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	PBW	Batch ID:	R9463		RunNo:	9463				
Prep Date:		Analysis Date:	3/27/2013		SeqNo:	270156	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303774-006FLLMS	SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total				
Client ID:	OW-10	Batch ID:	6621		RunNo:	9392				
Prep Date:	3/22/2013	Analysis Date:	3/25/2013		SeqNo:	268142		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.050	0.0025	0.05000	0.001132	98.2	70	130			
Selenium	0.056	0.0025	0.05000	0.009825	91.7	70	130			

Sample ID	LLLCS-6621	SampType: LCSLL			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID: 6621			RunNo: 9392					
Prep Date:	3/22/2013	Analysis Date: 3/25/2013			SeqNo: 268160		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.052	0.0025	0.05000	0	103	85	115			
Selenium	0.054	0.0025	0.05000	0	108	85	115			

Sample ID	MB-6621	SampType: MBLK			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID: 6621			RunNo: 9392					
Prep Date:	3/22/2013	Analysis Date: 3/25/2013			SeqNo: 268164		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								

Sample ID	LLLCS-6621	SampType: LCSLL			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID: 6621			RunNo: 9456					
Prep Date:	3/22/2013	Analysis Date: 3/27/2013			SeqNo: 269950		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.051	0.0025	0.05000	0	101	85	115			

Sample ID	MB-6621	SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total				
Client ID:	PBW	Batch ID:	6621		RunNo:	9456				
Prep Date:	3/22/2013	Analysis Date:	3/27/2013		SeqNo:	269952		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB-6600		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 6600		RunNo: 9353					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266679		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-6600		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 6600		RunNo: 9353					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266680		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0044	0.00020	0.005000	0	88.1	80	120			

Sample ID	1303594-007BMS		SampType: MS		TestCode: EPA Method 245.1: Mercury					
Client ID:	BatchQC		Batch ID: 6600		RunNo: 9353					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266682		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0047	0.00020	0.005000	0	93.4	75	125			

Sample ID	1303594-007BMSD		SampType: MSD		TestCode: EPA Method 245.1: Mercury					
Client ID:	BatchQC		Batch ID: 6600		RunNo: 9353					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266683		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0046	0.00020	0.005000	0	91.9	75	125	1.67	20	

Sample ID	MB-6630		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 6630		RunNo: 9403					
Prep Date:	3/25/2013		Analysis Date: 3/25/2013		SeqNo: 268428		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-6630		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 6630		RunNo: 9403					
Prep Date:	3/25/2013		Analysis Date: 3/25/2013		SeqNo: 268429		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	101	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
P Sample pH greater than 2	R RPD outside accepted recovery limits
RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303636-004AMS	SampType: MS			TestCode: EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID: 6630			RunNo: 9403					
Prep Date:	3/25/2013	Analysis Date: 3/25/2013			SeqNo: 268432		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	75	125			

Sample ID	1303636-004AMSD		SampType: MSD		TestCode: EPA Method 245.1: Mercury					
Client ID:	BatchQC		Batch ID: 6630		RunNo: 9403					
Prep Date:	3/25/2013		Analysis Date: 3/25/2013		SeqNo: 268434		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	99.6	75	125	2.21	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R9413		RunNo: 9413							
Prep Date:	Analysis Date: 3/25/2013		SeqNo: 268753		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R9413		RunNo: 9413							
Prep Date:	Analysis Date: 3/25/2013		SeqNo: 268754		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.8	90	110			
Chloride	4.8	0.50	5.000	0	95.0	90	110			
Bromide	2.4	0.10	2.500	0	95.4	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.8	90	110			
Sulfate	9.6	0.50	10.00	0	96.3	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.9	90	110			

Sample ID 1303946-001AMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R9413		RunNo: 9413							
Prep Date:	Analysis Date: 3/25/2013		SeqNo: 268756		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.90	0.10	0.5000	0.4292	94.1	76.6	110			
Chloride	7.5	0.50	5.000	2.377	102	87.8	111			
Bromide	2.5	0.10	2.500	0	98.2	83.3	107			
Sulfate	37	0.50	10.00	26.17	107	84.6	122			

Sample ID 1303946-001AMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R9413		RunNo: 9413							
Prep Date:	Analysis Date: 3/25/2013		SeqNo: 268757		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.90	0.10	0.5000	0.4292	94.6	76.6	110	0.278	20	
Chloride	7.4	0.50	5.000	2.377	101	87.8	111	0.974	20	
Bromide	2.5	0.10	2.500	0	98.6	83.3	107	0.472	20	
Sulfate	37	0.50	10.00	26.17	108	84.6	122	0.142	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303951-003AMS		SampType: MS		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R9413		RunNo: 9413					
Prep Date:			Analysis Date: 3/25/2013		SeqNo: 268760		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.71	0.10	0.5000	0.2314	96.1	76.6	110			
Chloride	17	0.50	5.000	11.59	109	87.8	111			
Bromide	2.4	0.10	2.500	0	97.5	83.3	107			

Sample ID	1303951-003AMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R9413		RunNo: 9413					
Prep Date:			Analysis Date: 3/25/2013		SeqNo: 268761		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.72	0.10	0.5000	0.2314	96.7	76.6	110	0.463	20	
Chloride	17	0.50	5.000	11.59	112	87.8	111	0.794	20	S
Bromide	2.4	0.10	2.500	0	97.5	83.3	107	0.0287	20	

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R9413			RunNo: 9413					
Prep Date:		Analysis Date: 3/26/2013			SeqNo: 268813		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R9413		RunNo: 9413					
Prep Date:			Analysis Date: 3/26/2013		SeqNo: 268814		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	98.2	90	110			
Chloride	4.7	0.50	5.000	0	94.0	90	110			
Bromide	2.4	0.10	2.500	0	94.2	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.9	90	110			
Sulfate	9.5	0.50	10.00	0	95.0	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	96.6	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

RL Reporting Detection Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303958-001AMS		SampType: MS		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R9413		RunNo: 9413					
Prep Date:			Analysis Date: 3/26/2013		SeqNo: 268816		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.81	0.10	0.5000	0.3355	94.6	76.6	110			
Bromide	2.5	0.10	2.500	0.1282	95.8	83.3	107			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	99.0	74.5	115			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.7	88.6	110			

Sample ID	1303958-001AMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R9413		RunNo: 9413					
Prep Date:			Analysis Date: 3/26/2013		SeqNo: 268817		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.81	0.10	0.5000	0.3355	94.7	76.6	110	0.0371	20	
Bromide	2.5	0.10	2.500	0.1282	96.1	83.3	107	0.348	20	
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.7	74.5	115	0.693	20	
Nitrate+Nitrite as N	3.5	0.20	3.500	0	100	88.6	110	0.369	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB-6602		SampType: MBLK		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	PBW		Batch ID: 6602		RunNo: 9345					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266495		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		105	75.4	146			

Sample ID	LCS-6602		SampType: LCS		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSW		Batch ID: 6602		RunNo: 9345					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266496		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.2	1.0	5.000	0	84.9	64.4	132			
Surr: DNOP	0.45		0.5000		89.1	75.4	146			

Sample ID	LCSD-6602		SampType: LCSD		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSS02		Batch ID: 6602		RunNo: 9345					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266629		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.7	1.0	5.000	0	93.9	64.4	132			
Surr: DNOP	0.50		0.5000		101	75.4	146			

Sample ID	MB-6602		SampType: MBLK		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	PBW		Batch ID: 6602		RunNo: 9344					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266700		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		107	75.4	146			

Sample ID	LCS-6602		SampType: LCS		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSW		Batch ID: 6602		RunNo: 9344					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266702		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.8	1.0	5.000	0	95.5	64.4	132			
Surr: DNOP	0.51		0.5000		102	75.4	146			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup**Project:** 2013 1st Quarter

Sample ID	LCSD-6602		SampType: LCSD		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSS02		Batch ID: 6602		RunNo: 9344					
Prep Date:	3/21/2013		Analysis Date: 3/22/2013		SeqNo: 266746		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.9	1.0	5.000	0	98.4	64.4	132	3.05	20	
Surr: DNOP	0.53		0.5000		106	75.4	146	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBW	Batch ID:	R9380	RunNo:	9380					
Prep Date:		Analysis Date:	3/22/2013	SeqNo:	267641	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		84.3	51.9	148			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSW	Batch ID:	R9380	RunNo:	9380					
Prep Date:		Analysis Date:	3/22/2013	SeqNo:	267643	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.57	0.050	0.5000	0	114	73.2	124			
Surr: BFB	18		20.00		91.5	51.9	148			

Sample ID	1303779-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R9380	RunNo:	9380					
Prep Date:		Analysis Date:	3/22/2013	SeqNo:	267651	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	77	5.0	50.00	19.80	114	65.2	137			
Surr: BFB	1900		2000		95.3	51.9	148			

Sample ID	1303779-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R9380	RunNo:	9380					
Prep Date:		Analysis Date:	3/22/2013	SeqNo:	267652	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	72	5.0	50.00	19.80	103	65.2	137	7.07	20	
Surr: BFB	1900		2000		95.7	51.9	148	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R9303			RunNo: 9303					
Prep Date:		Analysis Date: 3/20/2013			SeqNo: 265456		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								
1,1-Dichloropropene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R9303			RunNo: 9303					
Prep Date:		Analysis Date: 3/20/2013			SeqNo: 265456		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.1	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		90.5	69.5	130			
Surr: Dibromofluoromethane	8.6		10.00		86.0	70	130			
Surr: Toluene-d8	9.7		10.00		96.6	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R9303			RunNo: 9303					
Prep Date:		Analysis Date: 3/20/2013			SeqNo: 265459		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.9	70	130			
Toluene	20	1.0	20.00	0	99.7	80	120			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	107	85.8	133			
Trichloroethene (TCE)	17	1.0	20.00	0	85.7	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

RL Reporting Detection Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R9303			RunNo: 9303						
Prep Date:	Analysis Date: 3/20/2013			SeqNo: 265459		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.2	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.1	69.5	130			
Surr: Dibromofluoromethane	8.4		10.00		83.6	70	130			
Surr: Toluene-d8	9.6		10.00		95.6	70	130			

Sample ID 1303671-004amsd	SampType: MSD			TestCode: EPA Method 8260B: VOLATILES						
Client ID: BatchQC	Batch ID: R9303			RunNo: 9303						
Prep Date:	Analysis Date: 3/20/2013			SeqNo: 265472		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.8	70	130	7.97	20	
Toluene	21	1.0	20.00	0	106	68.5	128	9.02	20	
Chlorobenzene	20	1.0	20.00	0	102	70	130	6.05	20	
1,1-Dichloroethene	23	1.0	20.00	0	113	70	130	4.45	20	
Trichloroethene (TCE)	18	1.0	20.00	0	89.8	61.3	102	2.46	20	
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.4		10.00		94.5	69.5	130	0	0	
Surr: Dibromofluoromethane	9.3		10.00		93.5	70	130	0	0	
Surr: Toluene-d8	9.9		10.00		98.5	70	130	0	0	

Sample ID 1303702-001ams	SampType: MS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: BatchQC	Batch ID: R9303			RunNo: 9303						
Prep Date:	Analysis Date: 3/20/2013			SeqNo: 265474		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	40	2.0	40.00	0	99.2	70	130			
Toluene	41	2.0	40.00	0	102	68.5	128			
Chlorobenzene	41	2.0	40.00	0	101	70	130			
1,1-Dichloroethene	45	2.0	40.00	0	112	70	130			
Trichloroethene (TCE)	34	2.0	40.00	0	84.8	61.3	102			
Surr: 1,2-Dichloroethane-d4	20		20.00		97.6	70	130			
Surr: 4-Bromofluorobenzene	17		20.00		86.6	69.5	130			
Surr: Dibromofluoromethane	19		20.00		93.1	70	130			
Surr: Toluene-d8	19		20.00		96.0	70	130			

Sample ID 1303702-001amsd	SampType: MSD			TestCode: EPA Method 8260B: VOLATILES						
Client ID: BatchQC	Batch ID: R9303			RunNo: 9303						
Prep Date:	Analysis Date: 3/20/2013			SeqNo: 265475		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	39	2.0	40.00	0	96.4	70	130	2.87	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
P Sample pH greater than 2	R RPD outside accepted recovery limits
RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303774

28-Mar-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1303702-001amsd			SampType:	MSD			TestCode:	EPA Method 8260B: VOLATILES		
Client ID:	BatchQC			Batch ID:	R9303			RunNo:	9303		
Prep Date:				Analysis Date:	3/20/2013			SeqNo:	265475		Units: µg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Toluene	39	2.0	40.00	0	97.9	68.5	128	3.90	20		
Chlorobenzene	41	2.0	40.00	0	101	70	130	0.197	20		
1,1-Dichloroethene	40	2.0	40.00	0	98.9	70	130	12.0	20		
Trichloroethene (TCE)	35	2.0	40.00	0	87.9	61.3	102	3.64	20		
Surr: 1,2-Dichloroethane-d4	20		20.00		98.5	70	130	0	0		
Surr: 4-Bromofluorobenzene	18		20.00		88.0	69.5	130	0	0		
Surr: Dibromofluoromethane	18		20.00		92.0	70	130	0	0		
Surr: Toluene-d8	19		20.00		95.2	70	130	0	0		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1303774

RcptNo: 1

Received by/date:

LM

03/20/13

Logged By: Lindsay Mangin

3/20/2013 12:15:00 PM

Completed By: Ashley Gallegos

3/20/2013 2:19:50 PM

Reviewed By:

IO

03/20/2013

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No Not Present
2. Is Chain of Custody complete? Yes ☒ No Not Present
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No NA
5. Were all samples received at a temperature of >0° C to 6.0° C Yes ☒ No NA
6. Sample(s) in proper container(s)? Yes ☒ No
7. Sufficient sample volume for indicated test(s)? Yes ☒ No
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☒
9. Was preservative added to bottles? Yes ☒ No ☒
10. VOA vials have zero headspace? Yes ☒ No ☒
11. Were any sample containers received broken? Yes ☒ No ☒
12. Does paperwork match bottle labels? 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? Yes ☒ No ☒

*-001B -001C - ADDED 1ml HNO₃
-001B -001C - ADDED 0.2ml HNO₃ - FOR ACCEPTABLE pH*

No VOA Vials ☒

of preserved bottles checked for pH:

13
2 or >12 unless noted)

Adjusted? *Yes*

Checked by: *[Signature]*

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

eMail

Phone

Fax

In Person

Regarding:

Client Instructions:

17. Additional remarks: *-001C 001B, COLE = HELD IN LOG IN 24 HOURS AFTER pH ADJUSTMENT*

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.6	Good	Yes			

Chain-of-Custody Record				Turn-Around Time:		
Client:		Western Refining Company		☐ Standard	☐ Rush	
GALLUP REFINERY				Project Name:		
Mailing Address:				2013 1st Quarter		
RT 3 BOX 7, GALLUP, NM 87301				Project #:		
Phone #: 505-722-3833				OW WELLS		
email or Fax#: 505-863-0930				Project Manager:		
QA/QC Package:				C. JOHNSON (cheryl.johnson@wnr.com)		
☐ Standard ☐ Level 4 (Full Validation)				Sampler: C. JOHNSON		
☐ NELAP ☐ Other				On/Off: ☒ Yes ☐ No		
☐ EDD (Type)				Sample Temperature: 22		
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
3/19/2013	0815	H2O	OW-30			1303774
3/19/2013	0910	H2O	OW-14			-001
3/19/2013	1020	H2O	OW-29			-002
3/19/2013	1200	H2O	OW-13			-003
3/19/2013	1320	H2O	OW-1			-004
3/19/2013	1425	H2O	OW-10			-005
						-006
		H2O	FIELD BLANK			007
			TRIP BLANK			-008
Date:	Time:	Relinquished by:		Received by:		Date
3/20/13	1015	[Signature]		[Signature]		03/20/13 1205
Date:	Time:	Relinquished by:		Received by:		Date

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



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

July 09, 2013

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 2013 2nd Quarter

OrderNo.: 1306594

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 6/14/2013 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 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: AL-2 To EP-1

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 3:45:00 PM

Lab ID: 1306594-001

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	6.0	1.0		mg/L	1	6/14/2013 11:43:27 PM	7929
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2013 11:43:27 PM	7929
Surr: DNOP	120	75.4-146		%REC	1	6/14/2013 11:43:27 PM	7929
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.25		mg/L	5	6/17/2013 11:40:10 PM	R11360
Surr: BFB	90.4	51.5-151		%REC	5	6/17/2013 11:40:10 PM	R11360
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	4.8	1.0	*	mg/L	10	6/14/2013 5:44:59 PM	R11340
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	6/14/2013 5:44:59 PM	R11340
Bromide	ND	1.0		mg/L	10	6/14/2013 5:44:59 PM	R11340
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	6/14/2013 5:44:59 PM	R11340
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	6/14/2013 5:44:59 PM	R11340
Sulfate	1000	50		mg/L	100	6/14/2013 5:57:24 PM	R11340
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.034	0.0020		mg/L	1	6/19/2013 5:29:45 PM	R11414
Cadmium	ND	0.0020		mg/L	1	6/24/2013 6:45:22 PM	R11531
Calcium	390	5.0		mg/L	5	6/19/2013 5:32:39 PM	R11414
Chromium	0.0073	0.0060		mg/L	1	6/19/2013 5:29:45 PM	R11414
Copper	ND	0.0060		mg/L	1	6/24/2013 6:45:22 PM	R11531
Iron	0.14	0.020		mg/L	1	6/19/2013 5:29:45 PM	R11414
Magnesium	88	1.0		mg/L	1	6/19/2013 5:29:45 PM	R11414
Manganese	0.081	0.0020	*	mg/L	1	6/19/2013 5:29:45 PM	R11414
Potassium	47	1.0		mg/L	1	6/19/2013 5:29:45 PM	R11414
Silver	ND	0.050		mg/L	10	6/24/2013 6:48:14 PM	R11531
Sodium	590	10		mg/L	10	6/25/2013 6:05:38 PM	R11552
Zinc	0.037	0.010		mg/L	1	6/19/2013 5:29:45 PM	R11414
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.58	0.0020		mg/L	1	6/27/2013 10:48:55 AM	7937
Cadmium	ND	0.0020		mg/L	1	6/25/2013 3:35:04 PM	7937
Chromium	0.040	0.0060		mg/L	1	6/24/2013 8:13:38 PM	7937
Copper	0.25	0.0060		mg/L	1	6/27/2013 10:48:55 AM	7937
Iron	13	0.40	*	mg/L	20	6/25/2013 3:38:35 PM	7937
Manganese	0.22	0.0020	*	mg/L	1	6/27/2013 10:48:55 AM	7937
Silver	ND	0.0050		mg/L	1	6/25/2013 3:35:04 PM	7937
Zinc	1.2	0.050		mg/L	5	6/24/2013 8:17:10 PM	7937
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0052	0.0010		mg/L	1	6/26/2013 4:39:45 PM	R11577
Lead	ND	0.0010		mg/L	1	6/26/2013 4:39:45 PM	R11577

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: AL-2 To EP-1

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 3:45:00 PM

Lab ID: 1306594-001

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Selenium	0.0032	0.0010		mg/L	1	6/26/2013 4:39:45 PM	R11577
Uranium	0.0019	0.0010		mg/L	1	6/26/2013 4:39:45 PM	R11577
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.012	0.0010	*	mg/L	1	6/27/2013 1:21:05 PM	7937
Lead	0.013	0.0010		mg/L	1	6/27/2013 1:21:05 PM	7937
Selenium	0.0079	0.0010		mg/L	1	6/27/2013 1:21:05 PM	7937
Uranium	0.0019	0.0010		mg/L	1	6/27/2013 1:21:05 PM	7937
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	0.0062	0.00020	*	mg/L	1	6/18/2013 12:07:26 PM	7959
SM5210B: BOD							Analyst: ECH
Biochemical Oxygen Demand	130	2.0		mg/L	1	6/19/2013 4:31:00 PM	7931
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Acenaphthylene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Aniline	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Anthracene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Azobenzene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Benz(a)anthracene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Benzo(a)pyrene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Benzo(b)fluoranthene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Benzo(k)fluoranthene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Benzoic acid	ND	100		µg/L	1	6/19/2013 6:23:53 AM	7975
Benzyl alcohol	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Butyl benzyl phthalate	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Carbazole	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
4-Chloroaniline	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
2-Chloronaphthalene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
2-Chlorophenol	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Chrysene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Di-n-butyl phthalate	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: AL-2 To EP-1

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 3:45:00 PM

Lab ID: 1306594-001

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-octyl phthalate	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Dibenzofuran	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
1,2-Dichlorobenzene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
1,3-Dichlorobenzene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
1,4-Dichlorobenzene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
3,3'-Dichlorobenzidine	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Diethyl phthalate	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Dimethyl phthalate	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
2,4-Dichlorophenol	ND	100		µg/L	1	6/19/2013 6:23:53 AM	7975
2,4-Dimethylphenol	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/19/2013 6:23:53 AM	7975
2,4-Dinitrophenol	ND	100		µg/L	1	6/19/2013 6:23:53 AM	7975
2,4-Dinitrotoluene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
2,6-Dinitrotoluene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Fluoranthene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Fluorene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Hexachlorobenzene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Hexachlorobutadiene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Hexachloroethane	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Isophorone	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
1-Methylnaphthalene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
2-Methylnaphthalene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
2-Methylphenol	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
3+4-Methylphenol	150	50		µg/L	1	6/19/2013 6:23:53 AM	7975
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
N-Nitrosodimethylamine	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Naphthalene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
2-Nitroaniline	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
3-Nitroaniline	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
4-Nitroaniline	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Nitrobenzene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
2-Nitrophenol	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
4-Nitrophenol	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Pentachlorophenol	ND	100		µg/L	1	6/19/2013 6:23:53 AM	7975
Phenanthrene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Phenol	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: AL-2 To EP-1

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 3:45:00 PM

Lab ID: 1306594-001

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Pyrene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Pyridine	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/19/2013 6:23:53 AM	7975
Surr: 2,4,6-Tribromophenol	73.7	41.5-117		%REC	1	6/19/2013 6:23:53 AM	7975
Surr: 2-Fluorobiphenyl	63.7	29.1-112		%REC	1	6/19/2013 6:23:53 AM	7975
Surr: 2-Fluorophenol	58.0	11.9-98.6		%REC	1	6/19/2013 6:23:53 AM	7975
Surr: 4-Terphenyl-d14	63.7	46-111		%REC	1	6/19/2013 6:23:53 AM	7975
Surr: Nitrobenzene-d5	76.6	34.9-112		%REC	1	6/19/2013 6:23:53 AM	7975
Surr: Phenol-d5	45.1	17.5-88.3		%REC	1	6/19/2013 6:23:53 AM	7975
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Toluene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Ethylbenzene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Naphthalene	ND	2.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Acetone	20	10		µg/L	1	6/19/2013 12:17:27 PM	R11424
Bromobenzene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Bromoform	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Bromomethane	ND	3.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
2-Butanone	ND	10		µg/L	1	6/19/2013 12:17:27 PM	R11424
Carbon disulfide	14	10		µg/L	1	6/19/2013 12:17:27 PM	R11424
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Chlorobenzene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Chloroethane	ND	2.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Chloroform	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Chloromethane	ND	3.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2013 12:17:27 PM	R11424

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: AL-2 To EP-1

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 3:45:00 PM

Lab ID: 1306594-001

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Dibromomethane	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
2-Hexanone	ND	10		µg/L	1	6/19/2013 12:17:27 PM	R11424
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2013 12:17:27 PM	R11424
Methylene Chloride	ND	3.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Styrene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Vinyl chloride	ND	1.0		µg/L	1	6/19/2013 12:17:27 PM	R11424
Xylenes, Total	ND	1.5		µg/L	1	6/19/2013 12:17:27 PM	R11424
Surr: 1,2-Dichloroethane-d4	94.2	70-130		%REC	1	6/19/2013 12:17:27 PM	R11424
Surr: 4-Bromofluorobenzene	95.1	69.5-130		%REC	1	6/19/2013 12:17:27 PM	R11424
Surr: Dibromofluoromethane	99.4	70-130		%REC	1	6/19/2013 12:17:27 PM	R11424

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1306594**

Date Reported: **7/9/2013**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: AL-2 To EP-1

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 3:45:00 PM

Lab ID: 1306594-001

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: CWS	
Surr: Toluene-d8	97.3	70-130		%REC	1	6/19/2013 12:17:27 PM	R11424

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to EP-1

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 4:00:00 PM

Lab ID: 1306594-002

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	10	1.0		mg/L	1	6/15/2013 12:04:58 AM	7929
Motor Oil Range Organics (MRO)	7.6	5.0		mg/L	1	6/15/2013 12:04:58 AM	7929
Surr: DNOP	115	75.4-146		%REC	1	6/15/2013 12:04:58 AM	7929
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.25		mg/L	5	6/18/2013 12:10:28 AM	R11360
Surr: BFB	91.7	51.5-151		%REC	5	6/18/2013 12:10:28 AM	R11360
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	5.5	1.0	*	mg/L	10	6/14/2013 6:09:49 PM	R11340
Chloride	1000	50		mg/L	100	6/14/2013 6:22:14 PM	R11340
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	6/14/2013 6:09:49 PM	R11340
Bromide	ND	1.0		mg/L	10	6/14/2013 6:09:49 PM	R11340
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	6/14/2013 6:09:49 PM	R11340
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	6/14/2013 6:09:49 PM	R11340
Sulfate	1100	50		mg/L	100	6/14/2013 6:22:14 PM	R11340
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.037	0.0020		mg/L	1	6/19/2013 5:35:14 PM	R11414
Cadmium	ND	0.0020		mg/L	1	6/24/2013 6:50:44 PM	R11531
Calcium	400	5.0		mg/L	5	6/19/2013 5:38:05 PM	R11414
Chromium	0.0083	0.0060		mg/L	1	6/19/2013 5:35:14 PM	R11414
Copper	ND	0.0060		mg/L	1	6/24/2013 6:50:44 PM	R11531
Iron	0.17	0.020		mg/L	1	6/19/2013 5:35:14 PM	R11414
Magnesium	91	1.0		mg/L	1	6/19/2013 5:35:14 PM	R11414
Manganese	0.090	0.0020	*	mg/L	1	6/19/2013 5:35:14 PM	R11414
Potassium	48	1.0		mg/L	1	6/19/2013 5:35:14 PM	R11414
Silver	ND	0.050		mg/L	10	6/24/2013 6:53:37 PM	R11531
Sodium	580	10		mg/L	10	6/25/2013 6:08:03 PM	R11552
Zinc	0.043	0.010		mg/L	1	6/19/2013 5:35:14 PM	R11414
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.41	0.0020		mg/L	1	6/27/2013 10:51:19 AM	7937
Cadmium	ND	0.0020		mg/L	1	6/25/2013 3:42:41 PM	7937
Chromium	0.028	0.0060		mg/L	1	6/24/2013 8:20:46 PM	7937
Copper	0.15	0.0060		mg/L	1	6/27/2013 10:51:19 AM	7937
Iron	9.6	0.20	*	mg/L	10	6/25/2013 3:46:13 PM	7937
Manganese	0.18	0.0020	*	mg/L	1	6/27/2013 10:51:19 AM	7937
Silver	ND	0.0050		mg/L	1	6/25/2013 3:42:41 PM	7937
Zinc	0.76	0.010		mg/L	1	6/24/2013 8:20:46 PM	7937
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0060	0.0010		mg/L	1	6/26/2013 4:42:25 PM	R11577

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to EP-1

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 4:00:00 PM

Lab ID: 1306594-002

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0010		mg/L	1	6/26/2013 4:42:25 PM	R11577
Selenium	0.0033	0.0010		mg/L	1	6/26/2013 4:42:25 PM	R11577
Uranium	0.0019	0.0010		mg/L	1	6/26/2013 4:42:25 PM	R11577
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.011	0.0010	*	mg/L	1	6/27/2013 1:23:32 PM	7937
Lead	0.0086	0.0010		mg/L	1	6/27/2013 1:23:32 PM	7937
Selenium	0.0067	0.0010		mg/L	1	6/27/2013 1:23:32 PM	7937
Uranium	0.0018	0.0010		mg/L	1	6/27/2013 1:23:32 PM	7937
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	0.0043	0.00020	*	mg/L	1	6/18/2013 12:14:45 PM	7959
SM5210B: BOD							Analyst: ECH
Biochemical Oxygen Demand	160	2.0		mg/L	1	6/19/2013 4:31:00 PM	7931
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Acenaphthylene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Aniline	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Anthracene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Azobenzene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Benz(a)anthracene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Benzo(a)pyrene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Benzo(b)fluoranthene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Benzo(k)fluoranthene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Benzoic acid	ND	100		µg/L	1	6/19/2013 6:54:48 AM	7975
Benzyl alcohol	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Butyl benzyl phthalate	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Carbazole	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
4-Chloroaniline	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
2-Chloronaphthalene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
2-Chlorophenol	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Chrysene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975

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Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to EP-1

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 4:00:00 PM

Lab ID: 1306594-002

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Di-n-octyl phthalate	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Dibenzofuran	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
1,2-Dichlorobenzene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
1,3-Dichlorobenzene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
1,4-Dichlorobenzene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
3,3'-Dichlorobenzidine	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Diethyl phthalate	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Dimethyl phthalate	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
2,4-Dichlorophenol	ND	100		µg/L	1	6/19/2013 6:54:48 AM	7975
2,4-Dimethylphenol	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/19/2013 6:54:48 AM	7975
2,4-Dinitrophenol	ND	100		µg/L	1	6/19/2013 6:54:48 AM	7975
2,4-Dinitrotoluene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
2,6-Dinitrotoluene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Fluoranthene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Fluorene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Hexachlorobenzene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Hexachlorobutadiene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Hexachloroethane	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Isophorone	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
1-Methylnaphthalene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
2-Methylnaphthalene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
2-Methylphenol	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
3+4-Methylphenol	180	50		µg/L	1	6/19/2013 6:54:48 AM	7975
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
N-Nitrosodimethylamine	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Naphthalene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
2-Nitroaniline	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
3-Nitroaniline	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
4-Nitroaniline	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Nitrobenzene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
2-Nitrophenol	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
4-Nitrophenol	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Pentachlorophenol	ND	100		µg/L	1	6/19/2013 6:54:48 AM	7975
Phenanthrene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975

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	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to EP-1

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 4:00:00 PM

Lab ID: 1306594-002

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Pyrene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Pyridine	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/19/2013 6:54:48 AM	7975
Surr: 2,4,6-Tribromophenol	77.4	41.5-117		%REC	1	6/19/2013 6:54:48 AM	7975
Surr: 2-Fluorobiphenyl	61.1	29.1-112		%REC	1	6/19/2013 6:54:48 AM	7975
Surr: 2-Fluorophenol	61.9	11.9-98.6		%REC	1	6/19/2013 6:54:48 AM	7975
Surr: 4-Terphenyl-d14	68.0	46-111		%REC	1	6/19/2013 6:54:48 AM	7975
Surr: Nitrobenzene-d5	90.3	34.9-112		%REC	1	6/19/2013 6:54:48 AM	7975
Surr: Phenol-d5	48.7	17.5-88.3		%REC	1	6/19/2013 6:54:48 AM	7975
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Toluene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Ethylbenzene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Naphthalene	ND	2.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Acetone	22	10		µg/L	1	6/19/2013 1:01:33 AM	R11386
Bromobenzene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Bromoform	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Bromomethane	ND	3.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
2-Butanone	ND	10		µg/L	1	6/19/2013 1:01:33 AM	R11386
Carbon disulfide	23	10		µg/L	1	6/19/2013 1:01:33 AM	R11386
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Chlorobenzene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Chloroethane	ND	2.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Chloroform	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Chloromethane	ND	3.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386

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

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to EP-1

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 4:00:00 PM

Lab ID: 1306594-002

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Dibromomethane	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
2-Hexanone	ND	10		µg/L	1	6/19/2013 1:01:33 AM	R11386
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2013 1:01:33 AM	R11386
Methylene Chloride	ND	3.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Styrene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Vinyl chloride	ND	1.0		µg/L	1	6/19/2013 1:01:33 AM	R11386
Xylenes, Total	ND	1.5		µg/L	1	6/19/2013 1:01:33 AM	R11386
Surr: 1,2-Dichloroethane-d4	99.4	70-130		%REC	1	6/19/2013 1:01:33 AM	R11386
Surr: 4-Bromofluorobenzene	96.1	69.5-130		%REC	1	6/19/2013 1:01:33 AM	R11386

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

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to EP-1

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 4:00:00 PM

Lab ID: 1306594-002

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: CWS	
Surr: Dibromofluoromethane	105	70-130		%REC	1	6/19/2013 1:01:33 AM	R11386
Surr: Toluene-d8	102	70-130		%REC	1	6/19/2013 1:01:33 AM	R11386
SM4500-H+B: PH						Analyst: JML	
pH	8.10	1.68	H	pH units	1	6/14/2013 5:58:38 PM	R11333

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to AL-2

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 4:20:00 PM

Lab ID: 1306594-003

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	5.0	1.0		mg/L	1	6/15/2013 12:26:45 AM	7929
Motor Oil Range Organics (MRO)	6.5	5.0		mg/L	1	6/15/2013 12:26:45 AM	7929
Surr: DNOP	112	75.4-146		%REC	1	6/15/2013 12:26:45 AM	7929
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.25		mg/L	5	6/18/2013 12:40:30 AM	R11360
Surr: BFB	90.3	51.5-151		%REC	5	6/18/2013 12:40:30 AM	R11360
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	2.4	1.0		mg/L	10	6/14/2013 6:34:39 PM	R11340
Chloride	770	50		mg/L	100	6/14/2013 6:47:03 PM	R11340
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	6/14/2013 6:34:39 PM	R11340
Bromide	ND	1.0		mg/L	10	6/14/2013 6:34:39 PM	R11340
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	6/14/2013 6:34:39 PM	R11340
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	6/14/2013 6:34:39 PM	R11340
Sulfate	780	50		mg/L	100	6/14/2013 6:47:03 PM	R11340
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.018	0.0020		mg/L	1	6/19/2013 5:40:36 PM	R11414
Cadmium	ND	0.0020		mg/L	1	6/24/2013 7:05:08 PM	R11531
Calcium	330	5.0		mg/L	5	6/19/2013 5:43:26 PM	R11414
Chromium	ND	0.0060		mg/L	1	6/19/2013 5:40:36 PM	R11414
Copper	ND	0.0060		mg/L	1	6/24/2013 7:05:08 PM	R11531
Iron	0.081	0.020		mg/L	1	6/19/2013 5:40:36 PM	R11414
Magnesium	63	1.0		mg/L	1	6/19/2013 5:40:36 PM	R11414
Manganese	0.044	0.0020		mg/L	1	6/19/2013 5:40:36 PM	R11414
Potassium	36	1.0		mg/L	1	6/19/2013 5:40:36 PM	R11414
Silver	ND	0.025		mg/L	5	7/2/2013 8:12:36 AM	R11702
Sodium	500	5.0		mg/L	5	6/19/2013 5:43:26 PM	R11414
Zinc	0.012	0.010		mg/L	1	6/19/2013 5:40:36 PM	R11414
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.29	0.0020		mg/L	1	6/27/2013 10:53:41 AM	8022
Cadmium	ND	0.0020		mg/L	1	6/25/2013 3:50:18 PM	8022
Chromium	0.025	0.0060		mg/L	1	6/27/2013 10:53:41 AM	8022
Copper	0.16	0.0060		mg/L	1	6/27/2013 10:53:41 AM	8022
Iron	6.0	0.20	*	mg/L	10	6/27/2013 10:56:03 AM	8022
Manganese	0.12	0.0020	*	mg/L	1	6/27/2013 10:53:41 AM	8022
Silver	ND	0.0050		mg/L	1	6/25/2013 3:50:18 PM	8022
Zinc	0.60	0.010		mg/L	1	6/27/2013 10:53:41 AM	8022
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0033	0.0010		mg/L	1	6/26/2013 4:45:04 PM	R11577

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to AL-2

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 4:20:00 PM

Lab ID: 1306594-003

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0010		mg/L	1	6/26/2013 4:45:04 PM	R11577
Selenium	0.0026	0.0010		mg/L	1	6/26/2013 4:45:04 PM	R11577
Uranium	0.0015	0.0010		mg/L	1	6/26/2013 4:45:04 PM	R11577
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0061	0.0010		mg/L	1	6/27/2013 1:25:58 PM	8022
Lead	0.0056	0.0010		mg/L	1	6/27/2013 1:25:58 PM	8022
Selenium	0.0042	0.0010		mg/L	1	6/27/2013 1:25:58 PM	8022
Uranium	0.0014	0.0010		mg/L	1	6/27/2013 1:25:58 PM	8022
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	0.0019	0.00020		mg/L	1	6/19/2013 10:58:22 AM	7992
SM5210B: BOD							Analyst: ECH
Biochemical Oxygen Demand	98	2.0		mg/L	1	6/19/2013 4:31:00 PM	7931
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Acenaphthylene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Aniline	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Anthracene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Azobenzene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Benz(a)anthracene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Benzo(a)pyrene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Benzo(b)fluoranthene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Benzo(k)fluoranthene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Benzoic acid	ND	100		µg/L	1	6/19/2013 7:25:26 AM	7975
Benzyl alcohol	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Butyl benzyl phthalate	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Carbazole	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
4-Chloroaniline	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
2-Chloronaphthalene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
2-Chlorophenol	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Chrysene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to AL-2

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 4:20:00 PM

Lab ID: 1306594-003

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Di-n-butyl phthalate	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Di-n-octyl phthalate	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Dibenzofuran	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
1,2-Dichlorobenzene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
1,3-Dichlorobenzene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
1,4-Dichlorobenzene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
3,3'-Dichlorobenzidine	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Diethyl phthalate	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Dimethyl phthalate	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
2,4-Dichlorophenol	ND	100		µg/L	1	6/19/2013 7:25:26 AM	7975
2,4-Dimethylphenol	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/19/2013 7:25:26 AM	7975
2,4-Dinitrophenol	ND	100		µg/L	1	6/19/2013 7:25:26 AM	7975
2,4-Dinitrotoluene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
2,6-Dinitrotoluene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Fluoranthene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Fluorene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Hexachlorobenzene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Hexachlorobutadiene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Hexachloroethane	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Isophorone	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
1-Methylnaphthalene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
2-Methylnaphthalene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
2-Methylphenol	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
3+4-Methylphenol	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
N-Nitrosodimethylamine	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Naphthalene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
2-Nitroaniline	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
3-Nitroaniline	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
4-Nitroaniline	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Nitrobenzene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
2-Nitrophenol	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
4-Nitrophenol	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Pentachlorophenol	ND	100		µg/L	1	6/19/2013 7:25:26 AM	7975
Phenanthrene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to AL-2

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 4:20:00 PM

Lab ID: 1306594-003

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Phenol	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Pyrene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Pyridine	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/19/2013 7:25:26 AM	7975
Surr: 2,4,6-Tribromophenol	76.5	41.5-117		%REC	1	6/19/2013 7:25:26 AM	7975
Surr: 2-Fluorobiphenyl	70.1	29.1-112		%REC	1	6/19/2013 7:25:26 AM	7975
Surr: 2-Fluorophenol	54.8	11.9-98.6		%REC	1	6/19/2013 7:25:26 AM	7975
Surr: 4-Terphenyl-d14	69.6	46-111		%REC	1	6/19/2013 7:25:26 AM	7975
Surr: Nitrobenzene-d5	89.2	34.9-112		%REC	1	6/19/2013 7:25:26 AM	7975
Surr: Phenol-d5	48.2	17.5-88.3		%REC	1	6/19/2013 7:25:26 AM	7975
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Toluene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Ethylbenzene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Naphthalene	ND	2.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Acetone	ND	10		µg/L	1	6/19/2013 12:46:15 PM	R11424
Bromobenzene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Bromoform	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Bromomethane	ND	3.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
2-Butanone	ND	10		µg/L	1	6/19/2013 12:46:15 PM	R11424
Carbon disulfide	ND	10		µg/L	1	6/19/2013 12:46:15 PM	R11424
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Chlorobenzene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Chloroethane	ND	2.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Chloroform	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Chloromethane	ND	3.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to AL-2

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 4:20:00 PM

Lab ID: 1306594-003

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Dibromomethane	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
2-Hexanone	ND	10		µg/L	1	6/19/2013 12:46:15 PM	R11424
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2013 12:46:15 PM	R11424
Methylene Chloride	ND	3.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Styrene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Vinyl chloride	ND	1.0		µg/L	1	6/19/2013 12:46:15 PM	R11424
Xylenes, Total	ND	1.5		µg/L	1	6/19/2013 12:46:15 PM	R11424
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%REC	1	6/19/2013 12:46:15 PM	R11424
Surr: 4-Bromofluorobenzene	94.6	69.5-130		%REC	1	6/19/2013 12:46:15 PM	R11424

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Infl to AL-2

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 4:20:00 PM

Lab ID: 1306594-003

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: CWS	
Surr: Dibromofluoromethane	99.7	70-130		%REC	1	6/19/2013 12:46:15 PM	R11424
Surr: Toluene-d8	101	70-130		%REC	1	6/19/2013 12:46:15 PM	R11424
SM4500-H+B: PH						Analyst: JML	
pH	8.15	1.68	H	pH units	1	6/14/2013 6:02:47 PM	R11333

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Pilot Eff

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 4:30:00 PM

Lab ID: 1306594-004

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	12	1.0		mg/L	1	6/15/2013 12:48:19 AM	7929
Motor Oil Range Organics (MRO)	14	5.0		mg/L	1	6/15/2013 12:48:19 AM	7929
Surr: DNOP	116	75.4-146		%REC	1	6/15/2013 12:48:19 AM	7929
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.25		mg/L	5	6/18/2013 1:10:42 AM	R11360
Surr: BFB	91.8	51.5-151		%REC	5	6/18/2013 1:10:42 AM	R11360
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.019	0.0020		mg/L	1	6/19/2013 5:45:53 PM	R11414
Cadmium	ND	0.0020		mg/L	1	6/24/2013 7:08:00 PM	R11531
Chromium	0.0075	0.0060		mg/L	1	6/19/2013 5:45:53 PM	R11414
Copper	ND	0.0060		mg/L	1	6/24/2013 7:08:00 PM	R11531
Iron	0.49	0.020	*	mg/L	1	6/19/2013 5:45:53 PM	R11414
Manganese	0.076	0.0020	*	mg/L	1	6/19/2013 5:45:53 PM	R11414
Silver	ND	0.025		mg/L	5	7/2/2013 8:31:44 AM	R11702
Zinc	0.085	0.010		mg/L	1	6/19/2013 5:45:53 PM	R11414
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.064	0.0020		mg/L	1	6/27/2013 10:58:16 AM	7937
Cadmium	ND	0.0020		mg/L	1	6/25/2013 3:57:54 PM	7937
Chromium	0.018	0.0060		mg/L	1	6/27/2013 10:58:16 AM	7937
Copper	0.14	0.0060		mg/L	1	6/27/2013 10:58:16 AM	7937
Iron	3.1	0.10	*	mg/L	5	6/25/2013 4:01:28 PM	7937
Manganese	0.11	0.0020	*	mg/L	1	6/27/2013 10:58:16 AM	7937
Silver	ND	0.0050		mg/L	1	6/25/2013 3:57:54 PM	7937
Zinc	0.39	0.010		mg/L	1	6/27/2013 10:58:16 AM	7937
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	6/26/2013 5:42:08 PM	R11577
Lead	ND	0.0050		mg/L	5	6/28/2013 1:29:49 PM	R11643
Selenium	0.011	0.0010		mg/L	1	6/26/2013 5:42:08 PM	R11577
Uranium	ND	0.0050		mg/L	5	6/28/2013 1:29:49 PM	R11643
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0042	0.0010		mg/L	1	6/27/2013 1:33:20 PM	7937
Lead	ND	0.010		mg/L	10	6/25/2013 4:21:59 PM	7937
Selenium	0.0027	0.0010		mg/L	1	6/27/2013 1:33:20 PM	7937
Uranium	ND	0.010		mg/L	10	6/25/2013 4:21:59 PM	7937
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	0.00025	0.00020		mg/L	1	6/18/2013 12:16:36 PM	7959
SM5210B: BOD							Analyst: ECH

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Pilot Eff

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 4:30:00 PM

Lab ID: 1306594-004

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: ECH
Biochemical Oxygen Demand	750	2.0		mg/L	1	6/19/2013 4:31:00 PM	7931
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Toluene	1.7	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Ethylbenzene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Naphthalene	ND	2.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Acetone	85	10		µg/L	1	6/19/2013 1:15:04 PM	R11424
Bromobenzene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Bromoform	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Bromomethane	ND	3.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
2-Butanone	ND	10		µg/L	1	6/19/2013 1:15:04 PM	R11424
Carbon disulfide	ND	10		µg/L	1	6/19/2013 1:15:04 PM	R11424
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Chlorobenzene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Chloroethane	ND	2.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Chloroform	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Chloromethane	ND	3.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Dibromomethane	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Pilot Eff

Project: 2013 2nd Quarter

Collection Date: 6/13/2013 4:30:00 PM

Lab ID: 1306594-004

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
2-Hexanone	ND	10		µg/L	1	6/19/2013 1:15:04 PM	R11424
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
4-Isopropyltoluene	3.8	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2013 1:15:04 PM	R11424
Methylene Chloride	ND	3.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Styrene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Vinyl chloride	ND	1.0		µg/L	1	6/19/2013 1:15:04 PM	R11424
Xylenes, Total	ND	1.5		µg/L	1	6/19/2013 1:15:04 PM	R11424
Surr: 1,2-Dichloroethane-d4	93.3	70-130		%REC	1	6/19/2013 1:15:04 PM	R11424
Surr: 4-Bromofluorobenzene	92.5	69.5-130		%REC	1	6/19/2013 1:15:04 PM	R11424
Surr: Dibromofluoromethane	99.3	70-130		%REC	1	6/19/2013 1:15:04 PM	R11424
Surr: Toluene-d8	99.9	70-130		%REC	1	6/19/2013 1:15:04 PM	R11424

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 2nd Quarter

Collection Date:

Lab ID: 1306594-005

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Benzene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Toluene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Ethylbenzene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Naphthalene	ND	2.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Acetone	ND	10		µg/L	1	6/19/2013 2:28:10 AM	R11386
Bromobenzene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Bromoform	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Bromomethane	ND	3.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
2-Butanone	ND	10		µg/L	1	6/19/2013 2:28:10 AM	R11386
Carbon disulfide	ND	10		µg/L	1	6/19/2013 2:28:10 AM	R11386
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Chlorobenzene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Chloroethane	ND	2.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Chloroform	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Chloromethane	ND	3.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Dibromomethane	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 2nd Quarter

Collection Date:

Lab ID: 1306594-005

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
2-Hexanone	ND	10		µg/L	1	6/19/2013 2:28:10 AM	R11386
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2013 2:28:10 AM	R11386
Methylene Chloride	ND	3.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Styrene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Vinyl chloride	ND	1.0		µg/L	1	6/19/2013 2:28:10 AM	R11386
Xylenes, Total	ND	1.5		µg/L	1	6/19/2013 2:28:10 AM	R11386
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	6/19/2013 2:28:10 AM	R11386
Surr: 4-Bromofluorobenzene	94.3	69.5-130		%REC	1	6/19/2013 2:28:10 AM	R11386
Surr: Dibromofluoromethane	108	70-130		%REC	1	6/19/2013 2:28:10 AM	R11386
Surr: Toluene-d8	99.5	70-130		%REC	1	6/19/2013 2:28:10 AM	R11386

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 2nd Quarter

Collection Date:

Lab ID: 1306594-006

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Benzene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Toluene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Ethylbenzene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Naphthalene	ND	2.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Acetone	ND	10		µg/L	1	6/19/2013 2:57:02 AM	R11386
Bromobenzene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Bromoform	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Bromomethane	ND	3.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
2-Butanone	ND	10		µg/L	1	6/19/2013 2:57:02 AM	R11386
Carbon disulfide	ND	10		µg/L	1	6/19/2013 2:57:02 AM	R11386
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Chlorobenzene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Chloroethane	ND	2.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Chloroform	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Chloromethane	ND	3.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Dibromomethane	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306594

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 2nd Quarter

Collection Date:

Lab ID: 1306594-006

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
2-Hexanone	ND	10		µg/L	1	6/19/2013 2:57:02 AM	R11386
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2013 2:57:02 AM	R11386
Methylene Chloride	ND	3.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Styrene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Vinyl chloride	ND	1.0		µg/L	1	6/19/2013 2:57:02 AM	R11386
Xylenes, Total	ND	1.5		µg/L	1	6/19/2013 2:57:02 AM	R11386
Surr: 1,2-Dichloroethane-d4	97.1	70-130		%REC	1	6/19/2013 2:57:02 AM	R11386
Surr: 4-Bromofluorobenzene	90.5	69.5-130		%REC	1	6/19/2013 2:57:02 AM	R11386
Surr: Dibromofluoromethane	101	70-130		%REC	1	6/19/2013 2:57:02 AM	R11386
Surr: Toluene-d8	93.1	70-130		%REC	1	6/19/2013 2:57:02 AM	R11386

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
				Page 25 of 60



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

June 22, 2013

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L641942-01

Date Received : June 18, 2013
Description :
Sample ID : 1306594-001I AL-2 TO EP-1
Collected By :
Collection Date : 06/13/13 15:45

Site ID :
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	500	10.	mg/l	410.4	06/22/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 06/22/13 22:04 Printed: 06/22/13 22:04



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REPORT OF ANALYSIS

June 22, 2013

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L641942-02

Date Received : June 18, 2013
Description :
Sample ID : 1306594-002I INFL TO EP-1
Collected By :
Collection Date : 06/13/13 16:00

Site ID :
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	840	10.	mg/l	410.4	06/22/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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REPORT OF ANALYSIS

June 22, 2013

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L641942-03

Date Received : June 18, 2013
Description :

Site ID :

Sample ID : 1306594-003G INFL TO AL-2

Project # :

Collected By :
Collection Date : 06/13/13 16:20

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	310	10.	mg/l	410.4	06/22/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 06/22/13 22:04 Printed: 06/22/13 22:04



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REPORT OF ANALYSIS

June 22, 2013

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L641942-04

Date Received : June 18, 2013
Description :

Site ID :

Sample ID : 1306594-004G PILOT EFF

Project # :

Collected By :
Collection Date : 06/13/13 16:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	1200	20.	mg/l	410.4	06/22/13	2

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 06/22/13 22:04 Printed: 06/22/13 22:04



YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L641942

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

June 22, 2013

Analyte	Result	Laboratory Blank Units % Rec	Limit	Batch	Date Analyzed
COD	< 10	mg/l		WG668026	06/22/13 10:33

Analyte	Units	Result	Duplicate Duplicate	RPD	Limit	Ref Samp	Batch
COD	mg/l	16.0	13.0	20.7*	5	L641798-02	WG668026
COD	mg/l	22.0	26.0	16.7*	5	L642017-01	WG668026

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
COD	mg/l	183	196.	107.	90-110	WG668026

Analyte	Units	Result	Laboratory Control Sample Duplicate Ref %Rec	Limit	RPD	Limit	Batch
COD	mg/l	193.	196. 105.	90-110	1.54	5	WG668026

Analyte	Units	MS Res	Matrix Spike Ref Res TV	% Rec	Limit	Ref Samp	Batch
COD	mg/l	453.	53.0 400	100.	90-110	L641989-01	WG668026

Analyte	Units	MSD	Matrix Spike Duplicate Ref %Rec	Limit	RPD	Limit	Ref Samp	Batch
COD	mg/l	463.	453. 102.	90-110	2.18	5	L641989-01	WG668026

Batch number /Run number / Sample number cross reference

WG668026: R2718141: L641942-01 02 03 04

* * Calculations are performed prior to rounding of reported values.

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R11414			RunNo: 11414					
Prep Date:		Analysis Date: 6/19/2013			SeqNo: 322566		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11414		RunNo: 11414					
Prep Date:			Analysis Date: 6/19/2013		SeqNo: 322567		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	100	85	115			
Calcium	52	1.0	50.00	0	104	85	115			
Chromium	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.52	0.020	0.5000	0	104	85	115			
Magnesium	52	1.0	50.00	0	105	85	115			
Manganese	0.52	0.0020	0.5000	0	105	85	115			
Potassium	52	1.0	50.00	0	104	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R11414			RunNo: 11414					
Prep Date:		Analysis Date: 6/19/2013			SeqNo: 322584		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Sodium	ND	1.0								
Zinc	ND	0.010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	LCSW		Batch ID: R11414			RunNo: 11414				
Prep Date:	Analysis Date: 6/19/2013			SeqNo: 322585		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			
Calcium	51	1.0	50.00	0	102	85	115			
Chromium	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Magnesium	51	1.0	50.00	0	102	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Potassium	50	1.0	50.00	0	100	85	115			
Sodium	50	1.0	50.00	0	100	85	115			
Zinc	0.49	0.010	0.5000	0	97.9	85	115			

Sample ID	1306515-001CMS		SampType: MS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID: R11414			RunNo: 11414				
Prep Date:	Analysis Date: 6/19/2013			SeqNo: 322880		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.60	0.020	0.5000	0.07383	106	70	130			
Magnesium	59	1.0	50.00	8.228	102	70	130			
Manganese	0.53	0.0020	0.5000	0.0009200	106	70	130			

Sample ID	1306515-001CMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11414		RunNo: 11414					
Prep Date:			Analysis Date: 6/19/2013		SeqNo: 322881		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.59	0.020	0.5000	0.07383	103	70	130	2.33	20	
Magnesium	59	1.0	50.00	8.228	101	70	130	1.18	20	
Manganese	0.53	0.0020	0.5000	0.0009200	105	70	130	1.11	20	

Sample ID	1306515-001CMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11414		RunNo: 11414					
Prep Date:			Analysis Date: 6/19/2013		SeqNo: 322883		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	310	5.0	250.0	48.29	106	70	130			

Sample ID	1306515-001CMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11414		RunNo: 11414					
Prep Date:			Analysis Date: 6/19/2013		SeqNo: 322884		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	310	5.0	250.0	48.29	105	70	130	0.678	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID MB	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PBW	Batch ID: R11531		RunNo: 11531							
Prep Date:	Analysis Date: 6/24/2013		SeqNo: 326455		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020								
Copper	ND	0.0060								
Silver	ND	0.0050								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: LCSW	Batch ID: R11531		RunNo: 11531							
Prep Date:	Analysis Date: 6/24/2013		SeqNo: 326456		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.49	0.0020	0.5000	0	98.6	85	115			
Copper	0.48	0.0060	0.5000	0	97.0	85	115			
Silver	0.098	0.0050	0.1000	0	98.0	85	115			

Sample ID 1306587-008AMS	SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11531		RunNo: 11531							
Prep Date:	Analysis Date: 6/24/2013		SeqNo: 326504		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.58	0.0020	0.5000	0	116	70	130			
Copper	0.52	0.0060	0.5000	0	105	70	130			

Sample ID 1306587-008AMSD	SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11531		RunNo: 11531							
Prep Date:	Analysis Date: 6/24/2013		SeqNo: 326505		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.57	0.0020	0.5000	0	114	70	130	1.73	20	
Copper	0.52	0.0060	0.5000	0	104	70	130	0.958	20	

Sample ID 1306587-008AMS	SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11531		RunNo: 11531							
Prep Date:	Analysis Date: 6/24/2013		SeqNo: 326507		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.54	0.025	0.5000	0.01200	105	70	130			

Sample ID 1306587-008AMSD	SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11531		RunNo: 11531							
Prep Date:	Analysis Date: 6/24/2013		SeqNo: 326508		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 P Sample pH greater than 2 for VOA and TOC only.
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	1306587-008AMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11531		RunNo: 11531					
Prep Date:			Analysis Date: 6/24/2013		SeqNo: 326508		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.53	0.025	0.5000	0.01200	104	70	130	0.946	20	

Sample ID	1306587-008AMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11552		RunNo: 11552					
Prep Date:			Analysis Date: 6/25/2013		SeqNo: 327314		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	77	1.0	50.00	28.32	98.3	70	130			

Sample ID	1306587-008AMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11552		RunNo: 11552					
Prep Date:			Analysis Date: 6/25/2013		SeqNo: 327315		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	77	1.0	50.00	28.32	97.6	70	130	0.423	20	

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R11552			RunNo: 11552					
Prep Date:		Analysis Date: 6/25/2013			SeqNo: 327346		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11552		RunNo: 11552					
Prep Date:			Analysis Date: 6/25/2013		SeqNo: 327347		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	49	1.0	50.00	0	98.2	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	MB-7937		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 7937		RunNo: 11371					
Prep Date:	6/17/2013		Analysis Date: 6/18/2013		SeqNo: 321397		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-7937		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 7937		RunNo: 11371					
Prep Date:	6/17/2013		Analysis Date: 6/18/2013		SeqNo: 321398		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.8	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Chromium	0.52	0.0060	0.5000	0	104	85	115			
Copper	0.49	0.0060	0.5000	0	98.9	85	115			
Iron	0.51	0.020	0.5000	0	103	85	115			
Manganese	0.51	0.0020	0.5000	0	101	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.49	0.010	0.5000	0	98.0	85	115			

Sample ID	MB-8022		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 8022		RunNo: 11552					
Prep Date:	6/20/2013		Analysis Date: 6/25/2013		SeqNo: 327348		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

P Sample pH greater than 2 for VOA and TOC only.

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	LCS-8022		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 8022		RunNo: 11552					
Prep Date:	6/20/2013		Analysis Date: 6/25/2013		SeqNo: 327349		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	0.50	0.0020	0.5000	0	100	85	115			
Chromium	0.52	0.0060	0.5000	0	104	85	115			
Copper	0.49	0.0060	0.5000	0	99.0	85	115			
Iron	0.50	0.020	0.5000	0	99.8	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Silver	0.10	0.0050	0.1000	0	105	85	115			
Zinc	0.48	0.010	0.5000	0	96.8	85	115			

Sample ID	1306586-001BMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 7937		RunNo: 11564					
Prep Date:	6/17/2013		Analysis Date: 6/25/2013		SeqNo: 327786		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0.02288	92.2	70	130			
Cadmium	0.47	0.0020	0.5000	0	94.3	70	130			
Chromium	0.46	0.0060	0.5000	0.007160	89.7	70	130			
Silver	0.10	0.0050	0.1000	0.003970	98.2	70	130			

Sample ID	1306586-001BMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 7937		RunNo: 11564					
Prep Date:	6/17/2013		Analysis Date: 6/25/2013		SeqNo: 327787		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0.02288	91.5	70	130	0.767	20	
Cadmium	0.47	0.0020	0.5000	0	93.5	70	130	0.795	20	
Chromium	0.45	0.0060	0.5000	0.007160	89.0	70	130	0.738	20	
Silver	0.099	0.0050	0.1000	0.003970	95.4	70	130	2.80	20	

Sample ID	1306586-001BMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 7937		RunNo: 11609					
Prep Date:	6/17/2013		Analysis Date: 6/27/2013		SeqNo: 329197		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.54	0.0060	0.5000	0.005660	106	70	130			

Sample ID	1306586-001BMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 7937		RunNo: 11609					
Prep Date:	6/17/2013		Analysis Date: 6/27/2013		SeqNo: 329198		Units: mg/L			
Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	1306586-001BMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	7937	RunNo:	11609					
Prep Date:	6/17/2013	Analysis Date:	6/27/2013	SeqNo:	329198	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.53	0.0060	0.5000	0.005660	106	70	130	0.307	20	

Sample ID	1306586-001BMS	SampType:	MS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	7937	RunNo:	11620					
Prep Date:	6/17/2013	Analysis Date:	6/27/2013	SeqNo:	329557	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	2.5	0.050	0.5000	2.112	86.4	70	130			

Sample ID	1306586-001BMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	7937	RunNo:	11620					
Prep Date:	6/17/2013	Analysis Date:	6/27/2013	SeqNo:	329558	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	2.5	0.050	0.5000	2.112	81.6	70	130	0.950	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 328123		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	98.0	85	115			
Lead	0.025	0.0010	0.02500	0	99.7	85	115			
Selenium	0.024	0.0010	0.02500	0	97.4	85	115			
Uranium	0.025	0.0010	0.02500	0	98.7	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 328124		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.7	85	115			
Lead	0.026	0.0010	0.02500	0	103	85	115			
Selenium	0.025	0.0010	0.02500	0	99.6	85	115			
Uranium	0.026	0.0010	0.02500	0	103	85	115			

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 328125		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 328126		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	1306586-002AMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 329350		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0.0003280	105	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	1306586-002AMS		SampType: MS			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	BatchQC		Batch ID: R11577			RunNo: 11577				
Prep Date:			Analysis Date: 6/26/2013			SeqNo: 329350		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.026	0.0010	0.02500	0.0002579	103	70	130			
Selenium	0.030	0.0010	0.02500	0.001294	114	70	130			

Sample ID	1306587-006AMS		SampType: MS			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	BatchQC		Batch ID: R11577			RunNo: 11577				
Prep Date:			Analysis Date: 6/26/2013			SeqNo: 329354		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.003941	82.1	70	130			
Lead	0.027	0.0010	0.02500	0.0007356	106	70	130			

Sample ID	1306587-006AMSD		SampType: MSD			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	BatchQC		Batch ID: R11577			RunNo: 11577				
Prep Date:			Analysis Date: 6/26/2013			SeqNo: 329355		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.003941	80.7	70	130	1.41	20	
Lead	0.027	0.0010	0.02500	0.0007356	106	70	130	0.502	20	

Sample ID	1306597-001EMS		SampType: MS			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	BatchQC		Batch ID: R11577			RunNo: 11577				
Prep Date:			Analysis Date: 6/26/2013			SeqNo: 329369		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0010	0.02500	0.002526	106	70	130			
Lead	0.027	0.0010	0.02500	0.0001562	106	70	130			
Selenium	0.044	0.0010	0.02500	0.01861	100	70	130			

Sample ID	1306597-001EMSD		SampType: MSD			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	BatchQC		Batch ID: R11577			RunNo: 11577				
Prep Date:			Analysis Date: 6/26/2013			SeqNo: 329370		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0010	0.02500	0.002526	105	70	130	1.55	20	
Lead	0.026	0.0010	0.02500	0.0001562	105	70	130	1.09	20	
Selenium	0.042	0.0010	0.02500	0.01861	95.3	70	130	2.71	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID 1306710-004AMS	SampType: MS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11577		RunNo: 11577							
Prep Date:	Analysis Date: 6/26/2013		SeqNo: 329377		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0.003581	92.3	70	130			

Sample ID LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: R11577		RunNo: 11577							
Prep Date:	Analysis Date: 6/26/2013		SeqNo: 329379		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.9	85	115			
Lead	0.025	0.0010	0.02500	0	99.5	85	115			
Selenium	0.024	0.0010	0.02500	0	96.2	85	115			
Uranium	0.026	0.0010	0.02500	0	105	85	115			

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R11577		RunNo: 11577							
Prep Date:	Analysis Date: 6/26/2013		SeqNo: 329380		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID 1306587-006AMS	SampType: MS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11643		RunNo: 11643							
Prep Date:	Analysis Date: 6/28/2013		SeqNo: 330368		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.24	0.0050	0.1250	0.1024	109	70	130			

Sample ID 1306587-006AMSD	SampType: MSD		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11643		RunNo: 11643							
Prep Date:	Analysis Date: 6/28/2013		SeqNo: 330369		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.24	0.0050	0.1250	0.1024	112	70	130	1.68	20	

Sample ID 1306597-001EMS	SampType: MS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11643		RunNo: 11643							
Prep Date:	Analysis Date: 6/28/2013		SeqNo: 330379		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	1306597-001EMS			SampType:	MS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	R11643			RunNo:	11643		
Prep Date:				Analysis Date:	6/28/2013			SeqNo:	330379		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.19	0.0050	0.1250	0.07583	94.1	70	130				

Sample ID	1306597-001EMSD			SampType:	MSD			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	R11643			RunNo:	11643		
Prep Date:				Analysis Date:	6/28/2013			SeqNo:	330380		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.20	0.0050	0.1250	0.07583	102	70	130	5.23	20		

Sample ID	LCS			SampType:	LCS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	LCSW			Batch ID:	R11643			RunNo:	11643		
Prep Date:				Analysis Date:	6/28/2013			SeqNo:	330391		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.026	0.0010	0.02500	0	102	85	115				
Uranium	0.026	0.0010	0.02500	0	103	85	115				

Sample ID	LCS			SampType:	LCS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	LCSW			Batch ID:	R11643			RunNo:	11643		
Prep Date:				Analysis Date:	6/28/2013			SeqNo:	330392		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.026	0.0010	0.02500	0	103	85	115				
Uranium	0.026	0.0010	0.02500	0	103	85	115				

Sample ID	MB			SampType:	MBLK			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	PBW			Batch ID:	R11643			RunNo:	11643		
Prep Date:				Analysis Date:	6/28/2013			SeqNo:	330393		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	ND	0.0010									
Uranium	ND	0.0010									

Sample ID	MB			SampType:	MBLK			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	PBW			Batch ID:	R11643			RunNo:	11643		
Prep Date:				Analysis Date:	6/28/2013			SeqNo:	330394		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	ND	0.0010									
Uranium	ND	0.0010									

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	LLLCS-7937		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 7937		RunNo: 11411					
Prep Date:	6/17/2013		Analysis Date: 6/19/2013		SeqNo: 322828		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.0	85	115			
Lead	0.026	0.0010	0.02500	0	104	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID	MB-7937		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 7937		RunNo: 11411					
Prep Date:	6/17/2013		Analysis Date: 6/19/2013		SeqNo: 322835		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	LLLCS-7937		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 7937		RunNo: 11454					
Prep Date:	6/17/2013		Analysis Date: 6/20/2013		SeqNo: 323927		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	102	85	115			

Sample ID	LLLCS-8022		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 8022		RunNo: 11454					
Prep Date:	6/20/2013		Analysis Date: 6/20/2013		SeqNo: 323929		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.025	0.0010	0.02500	0	99.5	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			
Uranium	0.026	0.0010	0.02500	0	103	85	115			

Sample ID	MB-7937		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 7937		RunNo: 11454					
Prep Date:	6/17/2013		Analysis Date: 6/20/2013		SeqNo: 323931		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	MB-8022		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 8022		RunNo: 11454					
Prep Date:	6/20/2013		Analysis Date: 6/20/2013		SeqNo: 323933		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	1306566-001ALLMS		SampType: MSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 7937		RunNo: 11537					
Prep Date:	6/17/2013		Analysis Date: 6/25/2013		SeqNo: 327659		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.034	0.0010	0.02500	0.008290	102	70	130			

Sample ID	1306704-002ALLMS		SampType: MSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 8022		RunNo: 11602					
Prep Date:	6/20/2013		Analysis Date: 6/27/2013		SeqNo: 328800		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.034	0.0010	0.02500	0.007851	103	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	MB-7959		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 7959		RunNo: 11368					
Prep Date:	6/17/2013		Analysis Date: 6/18/2013		SeqNo: 321240		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-7959		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 7959		RunNo: 11368					
Prep Date:	6/17/2013		Analysis Date: 6/18/2013		SeqNo: 321243		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.2	80	120			

Sample ID	1306597-001FMS		SampType: MS			TestCode: EPA Method 245.1: Mercury				
Client ID:	BatchQC		Batch ID: 7959			RunNo: 11368				
Prep Date:	6/17/2013		Analysis Date: 6/18/2013			SeqNo: 321268		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	95.4	75	125			

Sample ID	1306597-001FMSD		SampType: MSD		TestCode: EPA Method 245.1: Mercury					
Client ID:	BatchQC		Batch ID: 7959		RunNo: 11368					
Prep Date:	6/17/2013		Analysis Date: 6/18/2013		SeqNo: 321269		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0047	0.00020	0.005000	0	93.7	75	125	1.88	20	

Sample ID	MB-7992		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 7992		RunNo: 11403					
Prep Date:	6/18/2013		Analysis Date: 6/19/2013		SeqNo: 322361		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-7992		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 7992		RunNo: 11403					
Prep Date:	6/18/2013		Analysis Date: 6/19/2013		SeqNo: 322362		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.9	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	1306604-003EMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	7992	RunNo:	11403					
Prep Date:	6/18/2013	Analysis Date:	6/19/2013	SeqNo:	322375	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	95.9	75	125			

Sample ID	1306604-003EMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	7992	RunNo:	11403					
Prep Date:	6/18/2013	Analysis Date:	6/19/2013	SeqNo:	322376	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0045	0.00020	0.005000	0	90.4	75	125	5.93	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R11340		RunNo: 11340							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320346		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R11340		RunNo: 11340							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320347		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	5.0	0.50	5.000	0	99.6	90	110			
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	99.6	90	110			
Bromide	2.5	0.10	2.500	0	101	90	110			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	104	90	110			
Phosphorus, Orthophosphate (As P)	5.2	0.50	5.000	0	104	90	110			
Sulfate	10	0.50	10.00	0	101	90	110			

Sample ID 1306588-001AMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R11340		RunNo: 11340							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320353		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.0	0.10	0.5000	1.568	87.8	76.9	114			
Nitrogen, Nitrite (As N)	7.4	0.10	1.000	6.702	74.6	84.3	102			S
Bromide	2.6	0.10	2.500	0.2783	92.7	92	104			
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	96.2	93	113			
Phosphorus, Orthophosphate (As P)	9.4	0.50	5.000	4.435	99.8	73.9	120			

Sample ID 1306588-001AMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R11340		RunNo: 11340							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320354		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.0	0.10	0.5000	1.568	82.8	76.9	114	1.27	20	
Nitrogen, Nitrite (As N)	7.5	0.10	1.000	6.702	75.1	84.3	102	0.0671	20	S
Bromide	2.6	0.10	2.500	0.2783	92.3	92	104	0.448	20	
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	95.3	93	113	0.952	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID 1306588-001AMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R11340		RunNo: 11340							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320354		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P)	9.4	0.50	5.000	4.435	99.6	73.9	120	0.109	20	

Sample ID 1306581-001CMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R11340		RunNo: 11340							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320359		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.3	0.10	0.5000	0.8218	86.9	76.9	114			
Chloride	18	0.50	5.000	12.83	104	89.9	119			
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	94.6	84.3	102			
Bromide	2.5	0.10	2.500	0.1283	95.3	92	104			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0.09280	98.1	93	113			
Phosphorus, Orthophosphate (As P)	5.0	0.50	5.000	0	100	73.9	120			

Sample ID 1306581-001CMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R11340		RunNo: 11340							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320360		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.3	0.10	0.5000	0.8218	90.2	76.9	114	1.29	20	
Chloride	18	0.50	5.000	12.83	105	89.9	119	0.246	20	
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	94.9	84.3	102	0.348	20	
Bromide	2.5	0.10	2.500	0.1283	95.6	92	104	0.243	20	
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0.09280	98.2	93	113	0.118	20	
Phosphorus, Orthophosphate (As P)	5.0	0.50	5.000	0	100	73.9	120	0.188	20	

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R11340		RunNo: 11340							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320400		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 300.0: Anions				
Client ID:	LCSW		Batch ID: R11340			RunNo: 11340				
Prep Date:	Analysis Date: 6/14/2013			SeqNo: 320401		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	101	90	110			
Chloride	4.8	0.50	5.000	0	95.3	90	110			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	95.8	90	110			
Bromide	2.4	0.10	2.500	0	96.9	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.7	90	110			
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	101	90	110			
Sulfate	9.6	0.50	10.00	0	96.1	90	110			

Sample ID	1306587-001AMS			SampType: MS		TestCode: EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID: R11340		RunNo: 11340					
Prep Date:			Analysis Date: 6/14/2013		SeqNo: 320406		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	18	0.50	5.000	12.63	112	89.9	119			
Bromide	2.5	0.10	2.500	0	98.4	92	104			

Sample ID	1306587-001AMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R11340		RunNo: 11340					
Prep Date:			Analysis Date: 6/14/2013		SeqNo: 320407		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	18	0.50	5.000	12.63	108	89.9	119	1.07	20	
Bromide	2.4	0.10	2.500	0	95.2	92	104	3.31	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	MB-7929	SampType: MBLK			TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW	Batch ID: 7929			RunNo: 11305					
Prep Date:	6/14/2013	Analysis Date: 6/14/2013			SeqNo: 319720		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.3		1.000		134	75.4	146			

Sample ID	LCS-7929		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 7929		RunNo: 11305					
Prep Date:	6/14/2013		Analysis Date: 6/14/2013		SeqNo: 319786		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.1	1.0	5.000	0	103	89.1	151			
Surr: DNOP	0.56		0.5000		111	75.4	146			

Sample ID	1306401-001CMS		SampType: MS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	BatchQC		Batch ID: 7929		RunNo: 11305					
Prep Date:	6/14/2013		Analysis Date: 6/14/2013		SeqNo: 319932		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.9	1.0	5.000	0	97.6	70	130			
Surr: DNOP	0.52		0.5000		104	75.4	146			

Sample ID	1306401-001CMSD		SampType: MSD		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	BatchQC		Batch ID: 7929		RunNo: 11305					
Prep Date:	6/14/2013		Analysis Date: 6/14/2013		SeqNo: 319933		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	105	70	130	7.55	20	
Surr: DNOP	0.57		0.5000		114	75.4	146	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID: R11360			RunNo: 11360					
Prep Date:		Analysis Date: 6/17/2013			SeqNo: 320888		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		90.2	51.5	151			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: R11360		RunNo: 11360					
Prep Date:			Analysis Date: 6/17/2013		SeqNo: 320889		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.53	0.050	0.5000	0	106	73.2	124			
Surr: BFB	19		20.00		96.0	51.5	151			

Sample ID	1306401-001BMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC		Batch ID: R11360		RunNo: 11360					
Prep Date:			Analysis Date: 6/17/2013		SeqNo: 320905		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	112	65.2	137			
Surr: BFB	19		20.00		97.4	51.5	151			

Sample ID	1306401-001BMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC		Batch ID: R11360		RunNo: 11360					
Prep Date:			Analysis Date: 6/17/2013		SeqNo: 320906		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.54	0.050	0.5000	0	108	65.2	137	3.74	20	
Surr: BFB	20		20.00		98.2	51.5	151	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R11386	RunNo:	11386					
Prep Date:		Analysis Date:	6/18/2013	SeqNo:	321868	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								
1,1-Dichloropropene	ND	1.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	5ml rb	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID: R11386				RunNo: 11386				
Prep Date:		Analysis Date: 6/18/2013				SeqNo: 321868	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	69.5	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	9.6		10.00		96.2	70	130			

Sample ID	100ng lcs	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW	Batch ID: R11386				RunNo: 11386				
Prep Date:		Analysis Date: 6/18/2013				SeqNo: 321870	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	114	70	130			
Toluene	23	1.0	20.00	0	113	80	120			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	110	85.8	133			
Trichloroethene (TCE)	22	1.0	20.00	0	109	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID 100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch ID: R11386		RunNo: 11386							
Prep Date:	Analysis Date: 6/18/2013		SeqNo: 321870		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.1	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.5	69.5	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID 1306461-005a ms	SampType: MS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: BatchQC	Batch ID: R11386		RunNo: 11386							
Prep Date:	Analysis Date: 6/18/2013		SeqNo: 321879		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130			
Toluene	22	1.0	20.00	0	111	68.5	128			
Chlorobenzene	20	1.0	20.00	0	99.5	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	117	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0.5508	100	61.3	102			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	69.5	130			
Surr: Dibromofluoromethane	9.7		10.00		96.6	70	130			
Surr: Toluene-d8	9.9		10.00		98.6	70	130			

Sample ID 1306461-005a msd	SampType: MSD		TestCode: EPA Method 8260B: VOLATILES							
Client ID: BatchQC	Batch ID: R11386		RunNo: 11386							
Prep Date:	Analysis Date: 6/18/2013		SeqNo: 321881		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	106	70	130	31.1	20	R
Toluene	22	1.0	20.00	0	108	68.5	128	34.4	20	R
Chlorobenzene	18	1.0	20.00	0	92.2	70	130	23.9	20	R
1,1-Dichloroethene	20	1.0	20.00	0	97.9	70	130	42.3	20	R
Trichloroethene (TCE)	20	1.0	20.00	0.5508	97.2	61.3	102	27.2	20	R
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.8		10.00		97.9	69.5	130	0	0	
Surr: Dibromofluoromethane	9.6		10.00		96.5	70	130	0	0	
Surr: Toluene-d8	10		10.00		104	70	130	0	0	

Sample ID 5ml rb	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R11424		RunNo: 11424							
Prep Date:	Analysis Date: 6/19/2013		SeqNo: 322997		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R11424	RunNo:	11424					
Prep Date:		Analysis Date:	6/19/2013	SeqNo:	322997	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID 5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R11424			RunNo: 11424						
Prep Date:	Analysis Date: 6/19/2013			SeqNo: 322997		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.8	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.0	69.5	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.8		10.00		98.1	70	130			

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R11424			RunNo: 11424						
Prep Date:	Analysis Date: 6/19/2013			SeqNo: 322999		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	111	70	130			
Toluene	23	1.0	20.00	0	113	80	120			
Chlorobenzene	21	1.0	20.00	0	105	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	105	85.8	133			
Trichloroethene (TCE)	22	1.0	20.00	0	109	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.1	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 P Sample pH greater than 2 for VOA and TOC only.
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	100ng lcs		SampType:	LCS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	LCSW		Batch ID:	R11424		RunNo:	11424			
Prep Date:			Analysis Date:	6/19/2013		SeqNo:	322999		Units: µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	9.3		10.00		93.3	69.5	130			
Surr: Dibromofluoromethane	9.8		10.00		98.0	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID	1306597-005a ms		SampType:	MS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	BatchQC		Batch ID:	R11424		RunNo:	11424			
Prep Date:			Analysis Date:	6/19/2013		SeqNo:	323008		Units: µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	115	70	130			
Toluene	23	1.0	20.00	0	116	68.5	128			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	105	70	130			
Trichloroethene (TCE)	23	1.0	20.00	0	113	61.3	102			S
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.4	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		94.6	69.5	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Sample ID	1306597-005a msd		SampType:	MSD		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	BatchQC		Batch ID:	R11424		RunNo:	11424			
Prep Date:			Analysis Date:	6/19/2013		SeqNo:	323009		Units: µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130	4.04	20	
Toluene	22	1.0	20.00	0	112	68.5	128	3.67	20	
Chlorobenzene	21	1.0	20.00	0	104	70	130	0.649	20	
1,1-Dichloroethene	20	1.0	20.00	0	100	70	130	4.47	20	
Trichloroethene (TCE)	20	1.0	20.00	0	101	61.3	102	11.5	20	
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.1		10.00		90.8	69.5	130	0	0	
Surr: Dibromofluoromethane	9.4		10.00		94.3	70	130	0	0	
Surr: Toluene-d8	10		10.00		102	70	130	0	0	

Sample ID	rb2		SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	PBW		Batch ID:	R11424		RunNo:	11424			
Prep Date:			Analysis Date:	6/19/2013		SeqNo:	325247		Units: µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	rb2	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R11424	RunNo:	11424					
Prep Date:		Analysis Date:	6/19/2013	SeqNo:	325247	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID rb2	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES					
Client ID: PBW	Batch ID: R11424				RunNo: 11424					
Prep Date:	Analysis Date: 6/19/2013				SeqNo: 325247	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.0	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.1	69.5	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID 100ng lcs ii	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES					
Client ID: LCSW	Batch ID: R11424				RunNo: 11424					
Prep Date:	Analysis Date: 6/19/2013				SeqNo: 325258	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	115	70	130			
Toluene	23	1.0	20.00	0	114	80	120			
Chlorobenzene	21	1.0	20.00	0	105	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	107	85.8	133			
Trichloroethene (TCE)	22	1.0	20.00	0	112	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.8	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.0	69.5	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	100ng lcs ii	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R11424	RunNo:	11424					
Prep Date:		Analysis Date:	6/19/2013	SeqNo:	325258	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	mb-7975	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	7975	RunNo:	11385					
Prep Date:	6/18/2013	Analysis Date:	6/19/2013	SeqNo:	321815	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								
2,4-Dinitrotoluene	ND	10								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	mb-7975	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	7975	RunNo:	11385					
Prep Date:	6/18/2013	Analysis Date:	6/19/2013	SeqNo:	321815	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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: 2,4,6-Tribromophenol	150		200.0		75.3	41.5	117			
Surr: 2-Fluorobiphenyl	68		100.0		67.7	29.1	112			
Surr: 2-Fluorophenol	120		200.0		60.6	11.9	98.6			
Surr: 4-Terphenyl-d14	68		100.0		68.3	46	111			
Surr: Nitrobenzene-d5	77		100.0		77.4	34.9	112			
Surr: Phenol-d5	97		200.0		48.6	17.5	88.3			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	Ics-7975		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 7975		RunNo: 11385					
Prep Date:	6/18/2013		Analysis Date: 6/19/2013		SeqNo: 321820		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	73	10	100.0	0	73.4	53.3	92.5			
4-Chloro-3-methylphenol	150	10	200.0	0	76.4	55.9	93.9			
2-Chlorophenol	130	10	200.0	0	62.7	51.1	85.8			
1,4-Dichlorobenzene	59	10	100.0	0	59.1	41.5	86.7			
2,4-Dinitrotoluene	100	10	100.0	0	102	57.5	102			
N-Nitrosodi-n-propylamine	80	10	100.0	0	80.2	52.1	99.7			
4-Nitrophenol	56	10	200.0	0	27.8	27.2	53			
Pentachlorophenol	87	20	200.0	0	43.3	33.7	77.7			
Phenol	76	10	200.0	0	38.1	23.3	66.3			
Pyrene	75	10	100.0	0	75.1	57	88.7			
1,2,4-Trichlorobenzene	65	10	100.0	0	65.2	46.7	87.8			
Surr: 2,4,6-Tribromophenol	140		200.0		67.6	41.5	117			
Surr: 2-Fluorobiphenyl	71		100.0		71.2	29.1	112			
Surr: 2-Fluorophenol	99		200.0		49.5	11.9	98.6			
Surr: 4-Terphenyl-d14	73		100.0		73.4	46	111			
Surr: Nitrobenzene-d5	90		100.0		89.7	34.9	112			
Surr: Phenol-d5	90		200.0		45.2	17.5	88.3			

Sample ID	1306595-005Dms		SampType: MS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	BatchQC		Batch ID: 7975		RunNo: 11385					
Prep Date:	6/18/2013		Analysis Date: 6/19/2013		SeqNo: 322147		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	73	10	100.0	0	73.4	70	130			
4-Chloro-3-methylphenol	140	10	200.0	0	69.7	70	130			S
2-Chlorophenol	130	10	200.0	0	66.7	70	130			S
1,4-Dichlorobenzene	56	10	100.0	0	55.8	70	130			S
2,4-Dinitrotoluene	100	10	100.0	0	101	70	130			
N-Nitrosodi-n-propylamine	75	10	100.0	0	74.6	70	130			
4-Nitrophenol	70	10	200.0	0	35.2	70	130			S
Pentachlorophenol	120	20	200.0	1.920	60.2	70	130			S
Phenol	65	10	200.0	0	32.6	70	130			S
Pyrene	71	10	100.0	0	71.1	70	130			
1,2,4-Trichlorobenzene	61	10	100.0	0	60.7	70	130			S
Surr: 2,4,6-Tribromophenol	160		200.0		80.5	41.5	117			
Surr: 2-Fluorobiphenyl	69		100.0		69.4	29.1	112			
Surr: 2-Fluorophenol	95		200.0		47.7	11.9	98.6			
Surr: 4-Terphenyl-d14	63		100.0		62.8	46	111			
Surr: Nitrobenzene-d5	78		100.0		78.4	34.9	112			
Surr: Phenol-d5	83		200.0		41.4	17.5	88.3			

Qualifiers:

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

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 P Sample pH greater than 2 for VOA and TOC only.
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	1306595-005Dmsd	SampType:	MSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	BatchQC	Batch ID:	7975	RunNo:	11385					
Prep Date:	6/18/2013	Analysis Date:	6/19/2013	SeqNo:	322148	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	76	10	100.0	0	76.2	70	130	3.72	20	
4-Chloro-3-methylphenol	180	10	200.0	0	89.9	70	130	25.2	20	R
2-Chlorophenol	140	10	200.0	0	69.8	70	130	4.57	20	S
1,4-Dichlorobenzene	60	10	100.0	0	59.8	70	130	6.78	20	S
2,4-Dinitrotoluene	100	10	100.0	0	105	70	130	3.36	20	
N-Nitrosodi-n-propylamine	80	10	100.0	0	79.9	70	130	6.84	20	
4-Nitrophenol	80	10	200.0	0	40.2	70	130	13.3	20	S
Pentachlorophenol	130	20	200.0	1.920	63.2	70	130	4.87	20	S
Phenol	77	10	200.0	0	38.6	70	130	16.8	20	S
Pyrene	78	10	100.0	0	77.8	70	130	9.03	20	
1,2,4-Trichlorobenzene	69	10	100.0	0	69.0	70	130	12.8	20	S
Surr: 2,4,6-Tribromophenol	160		200.0		82.2	41.5	117	0	0	
Surr: 2-Fluorobiphenyl	70		100.0		70.1	29.1	112	0	0	
Surr: 2-Fluorophenol	99		200.0		49.7	11.9	98.6	0	0	
Surr: 4-Terphenyl-d14	72		100.0		72.2	46	111	0	0	
Surr: Nitrobenzene-d5	84		100.0		84.0	34.9	112	0	0	
Surr: Phenol-d5	89		200.0		44.7	17.5	88.3	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	MB-7931		SampType: MBLK		TestCode: SM5210B: BOD					
Client ID:	PBW		Batch ID: 7931		RunNo: 11431					
Prep Date:	6/14/2013		Analysis Date: 6/19/2013		SeqNo: 323172		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	MB--7931		SampType: MBLK		TestCode: SM5210B: BOD					
Client ID:	PBW		Batch ID: 7931		RunNo: 11431					
Prep Date:	6/14/2013		Analysis Date: 6/19/2013		SeqNo: 323173		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	LCS-7931		SampType: LCS		TestCode: SM5210B: BOD					
Client ID:	LCSW		Batch ID: 7931		RunNo: 11431					
Prep Date:	6/14/2013		Analysis Date: 6/19/2013		SeqNo: 323174		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	190	2.0	198.0	0	98.1	84.6	115.4			

Sample ID	LCSD-7931	SampType: LCSD			TestCode: SM5210B: BOD					
Client ID:	LCSS02	Batch ID: 7931			RunNo: 11431					
Prep Date:	6/14/2013	Analysis Date: 6/19/2013			SeqNo: 323175		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	200	2.0	198.0	0	99.9	84.6	115.4	1.79	20	

Sample ID	1306559-001ADUP		SampType: DUP		TestCode: SM5210B: BOD					
Client ID:	BatchQC		Batch ID: 7931		RunNo: 11431					
Prep Date:	6/14/2013		Analysis Date: 6/19/2013		SeqNo: 323177		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	7.0	2.0						0.999	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 P Sample pH greater than 2 for VOA and TOC only.
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306594

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd Quarter

Sample ID	1306545-001d dup	SampType:	dup	TestCode:	SM4500-H+B: pH					
Client ID:	BatchQC	Batch ID:	R11333	RunNo:	11333					
Prep Date:		Analysis Date:	6/14/2013	SeqNo:	320229	Units:	pH units			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.72	1.68								H

Sample ID	1306581-004c dup	SampType:	dup	TestCode:	SM4500-H+B: pH					
Client ID:	BatchQC	Batch ID:	R11333	RunNo:	11333					
Prep Date:		Analysis Date:	6/14/2013	SeqNo:	320242	Units:	pH units			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.59	1.68								H

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1306594

RcptNo: 1

Received by/date: AT 06/14/13

Logged By: Lindsay Mangin 6/14/2013 9:47:00 AM

Completed By: Lindsay Mangin 6/14/2013 10:03:02 AM

Reviewed By: IO 06/14/13

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☒ No ☒ NA ☐
10. VOA vials have zero headspace? Added 0.4 mL HNO₃ 0041D for dissolved metal analysis, for acceptable pH.
+0031 Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? +003H (at 06/13/13) 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:

Adjusted?

Checked by: mg

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

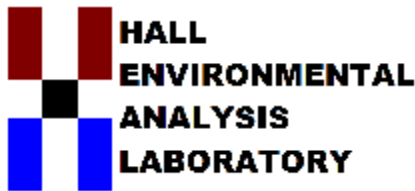
Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.0	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 01, 2013

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 2013 1st Quarter

OrderNo.: 1306596

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/14/2013 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.

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 1306596

Date Reported: 7/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: West LDU

Project: 2013 1st Quarter

Collection Date: 6/12/2013 3:20:00 PM

Lab ID: 1306596-001

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	4.7	1.0		mg/L	1	6/14/2013 9:33:05 PM	7930
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2013 9:33:05 PM	7930
Surr: DNOP	127	75.4-146		%REC	1	6/14/2013 9:33:05 PM	7930
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	31	5.0		mg/L	100	6/18/2013 6:00:40 PM	R11387
Surr: BFB	95.9	51.5-151		%REC	100	6/18/2013 6:00:40 PM	R11387
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	6/18/2013 6:00:40 PM	R11387
Benzene	6000	100		µg/L	100	6/18/2013 6:00:40 PM	R11387
Toluene	3000	100		µg/L	100	6/18/2013 6:00:40 PM	R11387
Ethylbenzene	490	100		µg/L	100	6/18/2013 6:00:40 PM	R11387
Xylenes, Total	5200	200		µg/L	100	6/18/2013 6:00:40 PM	R11387
1,2,4-Trimethylbenzene	690	100		µg/L	100	6/18/2013 6:00:40 PM	R11387
1,3,5-Trimethylbenzene	230	100		µg/L	100	6/18/2013 6:00:40 PM	R11387
Surr: 4-Bromofluorobenzene	111	69.4-129		%REC	100	6/18/2013 6:00:40 PM	R11387
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.22	0.0020		mg/L	1	6/19/2013 4:38:18 PM	R11414
Cadmium	ND	0.0020		mg/L	1	6/19/2013 4:38:18 PM	R11414
Chromium	0.036	0.0060		mg/L	1	6/19/2013 4:38:18 PM	R11414
Copper	ND	0.0060		mg/L	1	6/19/2013 4:38:18 PM	R11414
Iron	0.19	0.020		mg/L	1	6/19/2013 4:38:18 PM	R11414
Manganese	0.29	0.0020	*	mg/L	1	6/19/2013 4:38:18 PM	R11414
Silver	ND	0.0050		mg/L	1	6/24/2013 5:34:22 PM	R11531
Zinc	ND	0.010		mg/L	1	6/19/2013 4:38:18 PM	R11414
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.22	0.0020		mg/L	1	6/19/2013 2:54:04 PM	7937
Cadmium	ND	0.0020		mg/L	1	6/19/2013 2:54:04 PM	7937
Chromium	0.036	0.0060		mg/L	1	6/19/2013 2:54:04 PM	7937
Copper	ND	0.0060		mg/L	1	6/19/2013 2:54:04 PM	7937
Iron	0.31	0.020	*	mg/L	1	6/19/2013 2:54:04 PM	7937
Manganese	0.29	0.0020	*	mg/L	1	6/19/2013 2:54:04 PM	7937
Silver	ND	0.0050		mg/L	1	6/19/2013 2:54:04 PM	7937
Zinc	ND	0.010		mg/L	1	6/19/2013 2:54:04 PM	7937
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	6/21/2013 3:50:04 PM	R11496
Lead	ND	0.010		mg/L	10	6/21/2013 1:34:33 PM	R11496
Selenium	0.11	0.010	*	mg/L	10	6/21/2013 3:50:04 PM	R11496
Uranium	ND	0.010		mg/L	10	6/21/2013 1:34:33 PM	R11496

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306596

Date Reported: 7/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: West LDU

Project: 2013 1st Quarter

Collection Date: 6/12/2013 3:20:00 PM

Lab ID: 1306596-001

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0053	0.0050		mg/L	5	6/20/2013 3:03:48 PM	7937
Lead	ND	0.0050		mg/L	5	6/20/2013 3:03:48 PM	7937
Selenium	0.0097	0.0050		mg/L	5	6/20/2013 3:03:48 PM	7937
Uranium	ND	0.0050		mg/L	5	6/20/2013 3:03:48 PM	7937
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/18/2013 10:28:10 AM	7957

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
				Page 2 of 18

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306596

Date Reported: 7/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: East LDU

Project: 2013 1st Quarter

Collection Date: 6/12/2013 3:35:00 PM

Lab ID: 1306596-002

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	18	1.0		mg/L	1	6/14/2013 9:54:43 PM	7930
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2013 9:54:43 PM	7930
Surr: DNOP	125	75.4-146		%REC	1	6/14/2013 9:54:43 PM	7930
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	38	10		mg/L	200	6/18/2013 6:30:58 PM	R11387
Surr: BFB	91.5	51.5-151		%REC	200	6/18/2013 6:30:58 PM	R11387
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	500		µg/L	200	6/18/2013 6:30:58 PM	R11387
Benzene	9400	200		µg/L	200	6/18/2013 6:30:58 PM	R11387
Toluene	2200	200		µg/L	200	6/18/2013 6:30:58 PM	R11387
Ethylbenzene	510	200		µg/L	200	6/18/2013 6:30:58 PM	R11387
Xylenes, Total	6100	400		µg/L	200	6/18/2013 6:30:58 PM	R11387
1,2,4-Trimethylbenzene	800	200		µg/L	200	6/18/2013 6:30:58 PM	R11387
1,3,5-Trimethylbenzene	280	200		µg/L	200	6/18/2013 6:30:58 PM	R11387
Surr: 4-Bromofluorobenzene	107	69.4-129		%REC	200	6/18/2013 6:30:58 PM	R11387
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.56	0.0020		mg/L	1	6/19/2013 4:53:02 PM	R11414
Cadmium	ND	0.0020		mg/L	1	6/19/2013 4:53:02 PM	R11414
Chromium	0.69	0.0060	*	mg/L	1	6/19/2013 4:53:02 PM	R11414
Copper	ND	0.0060		mg/L	1	6/19/2013 4:53:02 PM	R11414
Iron	0.049	0.020		mg/L	1	6/19/2013 4:53:02 PM	R11414
Manganese	0.56	0.0020	*	mg/L	1	6/19/2013 4:53:02 PM	R11414
Silver	ND	0.0050		mg/L	1	6/24/2013 5:37:02 PM	R11531
Zinc	ND	0.010		mg/L	1	6/19/2013 4:53:02 PM	R11414
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.56	0.0020		mg/L	1	6/19/2013 2:59:14 PM	7937
Cadmium	ND	0.0020		mg/L	1	6/19/2013 2:59:14 PM	7937
Chromium	0.72	0.0060	*	mg/L	1	6/19/2013 2:59:14 PM	7937
Copper	ND	0.0060		mg/L	1	6/19/2013 2:59:14 PM	7937
Iron	0.091	0.020		mg/L	1	6/19/2013 2:59:14 PM	7937
Manganese	0.56	0.0020	*	mg/L	1	6/19/2013 2:59:14 PM	7937
Silver	ND	0.0050		mg/L	1	6/19/2013 2:59:14 PM	7937
Zinc	ND	0.010		mg/L	1	6/19/2013 2:59:14 PM	7937
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0063	0.0050		mg/L	5	6/21/2013 3:54:10 PM	R11496
Lead	ND	0.0050		mg/L	5	6/21/2013 1:38:39 PM	R11496
Selenium	0.020	0.0050		mg/L	5	6/21/2013 3:54:10 PM	R11496
Uranium	ND	0.0050		mg/L	5	6/21/2013 1:38:39 PM	R11496

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306596

Date Reported: 7/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: East LDU

Project: 2013 1st Quarter

Collection Date: 6/12/2013 3:35:00 PM

Lab ID: 1306596-002

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0070	0.0050		mg/L	5	6/20/2013 3:06:14 PM	7937
Lead	ND	0.0050		mg/L	5	6/20/2013 3:06:14 PM	7937
Selenium	0.0081	0.0050		mg/L	5	6/20/2013 3:06:14 PM	7937
Uranium	ND	0.0050		mg/L	5	6/20/2013 3:06:14 PM	7937
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/18/2013 10:29:59 AM	7957

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
				Page 4 of 18

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306596

Date Reported: 7/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Oil Sump LDU

Project: 2013 1st Quarter

Collection Date: 6/12/2013 3:50:00 PM

Lab ID: 1306596-003

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	17	1.0		mg/L	1	6/14/2013 10:16:30 PM	7930
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2013 10:16:30 PM	7930
Surr: DNOP	136	75.4-146		%REC	1	6/14/2013 10:16:30 PM	7930
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	42	10		mg/L	200	6/18/2013 7:01:18 PM	R11387
Surr: BFB	92.2	51.5-151		%REC	200	6/18/2013 7:01:18 PM	R11387
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	500		µg/L	200	6/18/2013 7:01:18 PM	R11387
Benzene	4500	200		µg/L	200	6/18/2013 7:01:18 PM	R11387
Toluene	9500	200		µg/L	200	6/18/2013 7:01:18 PM	R11387
Ethylbenzene	720	200		µg/L	200	6/18/2013 7:01:18 PM	R11387
Xylenes, Total	6300	400		µg/L	200	6/18/2013 7:01:18 PM	R11387
1,2,4-Trimethylbenzene	800	200		µg/L	200	6/18/2013 7:01:18 PM	R11387
1,3,5-Trimethylbenzene	250	200		µg/L	200	6/18/2013 7:01:18 PM	R11387
Surr: 4-Bromofluorobenzene	108	69.4-129		%REC	200	6/18/2013 7:01:18 PM	R11387
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.43	0.0020		mg/L	1	6/19/2013 4:58:14 PM	R11414
Cadmium	ND	0.0020		mg/L	1	6/19/2013 4:58:14 PM	R11414
Chromium	0.11	0.0060	*	mg/L	1	6/19/2013 4:58:14 PM	R11414
Copper	ND	0.0060		mg/L	1	6/19/2013 4:58:14 PM	R11414
Iron	0.13	0.020		mg/L	1	6/19/2013 4:58:14 PM	R11414
Manganese	1.2	0.010	*	mg/L	5	6/19/2013 5:00:55 PM	R11414
Silver	ND	0.0050		mg/L	1	6/24/2013 5:39:45 PM	R11531
Zinc	ND	0.010		mg/L	1	6/19/2013 4:58:14 PM	R11414
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.43	0.0020		mg/L	1	6/19/2013 3:17:35 PM	7937
Cadmium	ND	0.0020		mg/L	1	6/19/2013 3:17:35 PM	7937
Chromium	0.12	0.0060	*	mg/L	1	6/19/2013 3:17:35 PM	7937
Copper	ND	0.0060		mg/L	1	6/19/2013 3:17:35 PM	7937
Iron	0.42	0.020	*	mg/L	1	6/19/2013 3:17:35 PM	7937
Manganese	1.1	0.010	*	mg/L	5	6/19/2013 3:20:03 PM	7937
Silver	ND	0.0050		mg/L	1	6/19/2013 3:17:35 PM	7937
Zinc	0.022	0.010		mg/L	1	6/19/2013 3:17:35 PM	7937
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.020	*	mg/L	20	6/21/2013 3:58:16 PM	R11496
Lead	ND	0.020		mg/L	20	6/21/2013 1:42:45 PM	R11496
Selenium	0.074	0.020	*	mg/L	20	6/21/2013 3:58:16 PM	R11496
Uranium	ND	0.020		mg/L	20	6/21/2013 1:42:45 PM	R11496

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306596

Date Reported: 7/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Oil Sump LDU

Project: 2013 1st Quarter

Collection Date: 6/12/2013 3:50:00 PM

Lab ID: 1306596-003

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.018	0.0050	*	mg/L	5	6/20/2013 3:16:03 PM	7937
Lead	ND	0.0050		mg/L	5	6/20/2013 3:16:03 PM	7937
Selenium	0.015	0.0050		mg/L	5	6/20/2013 3:16:03 PM	7937
Uranium	ND	0.0050		mg/L	5	6/20/2013 3:16:03 PM	7937
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/18/2013 10:31:54 AM	7957

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
				Page 6 of 18

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306596

Date Reported: 7/1/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2013 1st Quarter

Collection Date:

Lab ID: 1306596-004

Matrix: TRIP BLANK

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE				Analyst: NSB			
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/18/2013 8:03:25 PM	R11387
Surr: BFB	90.1	51.5-151		%REC	1	6/18/2013 8:03:25 PM	R11387
EPA METHOD 8021B: VOLATILES				Analyst: NSB			
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/18/2013 8:03:25 PM	R11387
Benzene	ND	1.0		µg/L	1	6/18/2013 8:03:25 PM	R11387
Toluene	ND	1.0		µg/L	1	6/18/2013 8:03:25 PM	R11387
Ethylbenzene	ND	1.0		µg/L	1	6/18/2013 8:03:25 PM	R11387
Xylenes, Total	ND	2.0		µg/L	1	6/18/2013 8:03:25 PM	R11387
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/18/2013 8:03:25 PM	R11387
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/18/2013 8:03:25 PM	R11387
Surr: 4-Bromofluorobenzene	104	69.4-129		%REC	1	6/18/2013 8:03:25 PM	R11387

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
				Page 7 of 18

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306596

01-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R11414			RunNo: 11414					
Prep Date:		Analysis Date: 6/19/2013			SeqNo: 322566		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								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11414		RunNo: 11414					
Prep Date:			Analysis Date: 6/19/2013		SeqNo: 322567		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	100	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.52	0.0060	0.5000	0	104	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.52	0.020	0.5000	0	104	85	115			
Manganese	0.52	0.0020	0.5000	0	105	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R11414			RunNo: 11414					
Prep Date:		Analysis Date: 6/19/2013			SeqNo: 322584		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								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11414		RunNo: 11414					
Prep Date:			Analysis Date: 6/19/2013		SeqNo: 322585		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	0.49	0.0020	0.5000	0	98.6	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

P Sample pH greater than 2 for VOA and TOC only.

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306596

01-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID LCS	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: LCSW	Batch ID: R11414			RunNo: 11414						
Prep Date:	Analysis Date: 6/19/2013			SeqNo: 322585		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.51	0.0060	0.5000	0	102	85	115			
Copper	0.49	0.0060	0.5000	0	97.3	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Zinc	0.49	0.010	0.5000	0	97.9	85	115			

Sample ID 1306515-001CMS	SampType: MS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: BatchQC	Batch ID: R11414			RunNo: 11414						
Prep Date:	Analysis Date: 6/19/2013			SeqNo: 322880		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.50	0.0060	0.5000	0.01372	96.6	70	130			
Iron	0.60	0.020	0.5000	0.07383	106	70	130			
Manganese	0.53	0.0020	0.5000	0.0009200	106	70	130			

Sample ID 1306515-001CMSD	SampType: MSD			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: BatchQC	Batch ID: R11414			RunNo: 11414						
Prep Date:	Analysis Date: 6/19/2013			SeqNo: 322881		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.49	0.0060	0.5000	0.01372	95.4	70	130	1.28	20	
Iron	0.59	0.020	0.5000	0.07383	103	70	130	2.33	20	
Manganese	0.53	0.0020	0.5000	0.0009200	105	70	130	1.11	20	

Sample ID MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: PBW	Batch ID: R11531			RunNo: 11531						
Prep Date:	Analysis Date: 6/24/2013			SeqNo: 326455		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: LCSW	Batch ID: R11531			RunNo: 11531						
Prep Date:	Analysis Date: 6/24/2013			SeqNo: 326456		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.098	0.0050	0.1000	0	98.0	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 P Sample pH greater than 2 for VOA and TOC only.
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306596

01-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB-7937		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 7937		RunNo: 11371					
Prep Date:	6/17/2013		Analysis Date: 6/18/2013		SeqNo: 321397		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-7937		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 7937		RunNo: 11371					
Prep Date:	6/17/2013		Analysis Date: 6/18/2013		SeqNo: 321398		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.8	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Chromium	0.52	0.0060	0.5000	0	104	85	115			
Copper	0.49	0.0060	0.5000	0	98.9	85	115			
Iron	0.51	0.020	0.5000	0	103	85	115			
Manganese	0.51	0.0020	0.5000	0	101	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.49	0.010	0.5000	0	98.0	85	115			

Sample ID	1306586-001BMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 7937		RunNo: 11620					
Prep Date:	6/17/2013		Analysis Date: 6/27/2013		SeqNo: 329557		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	2.5	0.050	0.5000	2.112	86.4	70	130			

Sample ID	1306586-001BMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 7937		RunNo: 11620					
Prep Date:	6/17/2013		Analysis Date: 6/27/2013		SeqNo: 329558		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	2.5	0.050	0.5000	2.112	81.6	70	130	0.950	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306596

01-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID 1306311-002AMS	SampType: MS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11496		RunNo: 11496							
Prep Date:	Analysis Date: 6/21/2013		SeqNo: 325160		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.031	0.0010	0.02500	0.006055	99.8	70	130			

Sample ID 1306311-014AMS	SampType: MS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11496		RunNo: 11496							
Prep Date:	Analysis Date: 6/21/2013		SeqNo: 325168		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.13	0.0050	0.1250	0.006160	102	70	130			
Uranium	0.14	0.0050	0.1250	0.01025	103	70	130			

Sample ID 1306311-014AMS	SampType: MS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11496		RunNo: 11496							
Prep Date:	Analysis Date: 6/21/2013		SeqNo: 325169		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0	106	70	130			
Selenium	0.14	0.0050	0.1250	0.002989	111	70	130			

Sample ID 1306311-014AMSD	SampType: MSD		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11496		RunNo: 11496							
Prep Date:	Analysis Date: 6/21/2013		SeqNo: 325170		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.13	0.0050	0.1250	0.006160	102	70	130	0.0951	20	
Uranium	0.14	0.0050	0.1250	0.01025	104	70	130	0.502	20	

Sample ID 1306311-014AMSD	SampType: MSD		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11496		RunNo: 11496							
Prep Date:	Analysis Date: 6/21/2013		SeqNo: 325171		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.14	0.0050	0.1250	0	109	70	130	2.41	20	
Selenium	0.15	0.0050	0.1250	0.002989	114	70	130	2.36	20	

Sample ID 1306311-018AMS	SampType: MS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11496		RunNo: 11496							
Prep Date:	Analysis Date: 6/21/2013		SeqNo: 325175		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.028	0.0010	0.02500	0.001524	106	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306596

01-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11496		RunNo: 11496					
Prep Date:			Analysis Date: 6/21/2013		SeqNo: 325182		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.3	85	115			
Lead	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	95.5	85	115			
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11496		RunNo: 11496					
Prep Date:			Analysis Date: 6/21/2013		SeqNo: 325184		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	94.8	85	115			
Selenium	0.024	0.0010	0.02500	0	94.3	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R11496			RunNo: 11496					
Prep Date:		Analysis Date: 6/21/2013			SeqNo: 325186		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R11496			RunNo: 11496					
Prep Date:		Analysis Date: 6/21/2013			SeqNo: 325188		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306596

01-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	LLLCS-7937		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 7937		RunNo: 11411					
Prep Date:	6/17/2013		Analysis Date: 6/19/2013		SeqNo: 322828		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.0	85	115			
Lead	0.026	0.0010	0.02500	0	104	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID	MB-7937		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 7937		RunNo: 11411					
Prep Date:	6/17/2013		Analysis Date: 6/19/2013		SeqNo: 322835		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	LLLCS-7937		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 7937		RunNo: 11454					
Prep Date:	6/17/2013		Analysis Date: 6/20/2013		SeqNo: 323927		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	102	85	115			

Sample ID	MB-7937		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 7937		RunNo: 11454					
Prep Date:	6/17/2013		Analysis Date: 6/20/2013		SeqNo: 323931		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID	1306566-001ALLMS		SampType: MSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 7937		RunNo: 11537					
Prep Date:	6/17/2013		Analysis Date: 6/25/2013		SeqNo: 327659		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.034	0.0010	0.02500	0.008290	102	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306596

01-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB-7957		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 7957		RunNo: 11368					
Prep Date:	6/17/2013		Analysis Date: 6/18/2013		SeqNo: 321183		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-7957		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 7957		RunNo: 11368					
Prep Date:	6/17/2013		Analysis Date: 6/18/2013		SeqNo: 321184		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.6	80	120			

Sample ID	1306311-011BMS		SampType: MS		TestCode: EPA Method 245.1: Mercury					
Client ID:	BatchQC		Batch ID: 7957		RunNo: 11368					
Prep Date:	6/17/2013		Analysis Date: 6/18/2013		SeqNo: 321210		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	75	125			

Sample ID	1306311-011BMSD			SampType:	MSD		TestCode:	EPA Method 245.1: Mercury			
Client ID:	BatchQC			Batch ID:	7957		RunNo:	11368			
Prep Date:	6/17/2013			Analysis Date:	6/18/2013		SeqNo:	321211		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0051	0.00020	0.005000	0	102	75	125	0.0383	20		

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306596

01-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	MB-7930	SampType: MBLK			TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW	Batch ID: 7930			RunNo: 11305					
Prep Date:	6/14/2013	Analysis Date: 6/14/2013			SeqNo: 319910		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		105	75.4	146			

Sample ID	LCS-7930		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 7930		RunNo: 11305					
Prep Date:	6/14/2013		Analysis Date: 6/14/2013		SeqNo: 319911		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.9	1.0	5.000	0	98.2	89.1	151			
Surr: DNOP	0.51		0.5000		103	75.4	146			

Sample ID	LCSD-7930		SampType: LCSD		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSS02		Batch ID: 7930		RunNo: 11305					
Prep Date:	6/14/2013		Analysis Date: 6/14/2013		SeqNo: 319912		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	100	89.1	151	2.11	20	
Surr: DNOP	0.55		0.5000		110	75.4	146	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306596

01-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID: R11387			RunNo: 11387					
Prep Date:		Analysis Date: 6/18/2013			SeqNo: 321875		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		90.1	51.5	151			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: R11387		RunNo: 11387					
Prep Date:			Analysis Date: 6/18/2013		SeqNo: 321876		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.49	0.050	0.5000	0	98.1	73.2	124			
Surr: BFB	20		20.00		97.8	51.5	151			

Sample ID	1306595-006AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC		Batch ID: R11387		RunNo: 11387					
Prep Date:			Analysis Date: 6/18/2013		SeqNo: 321884		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	100	65.2	137			
Surr: BFB	20		20.00		99.0	51.5	151			

Sample ID	1306595-006AMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC		Batch ID: R11387		RunNo: 11387					
Prep Date:			Analysis Date: 6/18/2013		SeqNo: 321885		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	95.7	65.2	137	4.85	20	
Surr: BFB	20		20.00		97.7	51.5	151	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306596

01-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID:	R11387	RunNo:	11387					
Prep Date:		Analysis Date:	6/18/2013	SeqNo:	321967	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	21		20.00		105	69.4	129			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	R11387	RunNo:	11387					
Prep Date:		Analysis Date:	6/18/2013	SeqNo:	321968	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	22	2.5	20.00	0	110	76.8	124			
Benzene	21	1.0	20.00	0	107	80	120			
Toluene	21	1.0	20.00	0	107	80	120			
Ethylbenzene	21	1.0	20.00	0	106	80	120			
Xylenes, Total	65	2.0	60.00	0	109	80	120			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	105	80	120			
1,3,5-Trimethylbenzene	22	1.0	20.00	0	110	80	120			
Surr: 4-Bromofluorobenzene	22		20.00		111	69.4	129			

Sample ID	1306595-007AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BatchQC	Batch ID:	R11387	RunNo:	11387					
Prep Date:		Analysis Date:	6/18/2013	SeqNo:	321975	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	22	2.5	20.00	0	108	65.6	125			
Benzene	21	1.0	20.00	0	103	80	120			
Toluene	20	1.0	20.00	0.4460	100	80	120			
Ethylbenzene	21	1.0	20.00	0.3560	103	80	120			
Xylenes, Total	64	2.0	60.00	0.6160	106	80	120			
1,2,4-Trimethylbenzene	21	1.0	20.00	0.2840	102	74	128			
1,3,5-Trimethylbenzene	21	1.0	20.00	0.2240	106	75.5	130			
Surr: 4-Bromofluorobenzene	22		20.00		109	69.4	129			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306596

01-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 1st Quarter

Sample ID	1306595-007AMSD		SampType: MSD			TestCode: EPA Method 8021B: Volatiles				
Client ID:	BatchQC		Batch ID: R11387			RunNo: 11387				
Prep Date:			Analysis Date: 6/18/2013			SeqNo: 321976		Units: µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	22	2.5	20.00	0	111	65.6	125	2.50	20	
Benzene	21	1.0	20.00	0	103	80	120	0.718	20	
Toluene	20	1.0	20.00	0.4460	100	80	120	0.0880	20	
Ethylbenzene	21	1.0	20.00	0.3560	102	80	120	0.595	20	
Xylenes, Total	64	2.0	60.00	0.6160	105	80	120	0.800	20	
1,2,4-Trimethylbenzene	21	1.0	20.00	0.2840	102	74	128	0.0777	20	
1,3,5-Trimethylbenzene	21	1.0	20.00	0.2240	106	75.5	130	0.719	20	
Surr: 4-Bromofluorobenzene	22		20.00		108	69.4	129	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1306596

RcptNo: 1

Received by/date:

AT *06/14/13*

Logged By: Lindsay Mangin

6/14/2013 9:47:00 AM

[Signature]

Completed By: Lindsay Mangin

6/14/2013 10:57:00 AM

[Signature]

Reviewed By:

[Signature] *06/14/13*

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☒
9. Was preservative added to bottles? Yes ☒ No ☒ NA ☐
10. VOA vials have zero headspace? *FOR METALS ANALYSIS: -0010, -0020 - ADDED 1mL HNO₃ - 0030 - ADDED 2mL HNO₃ FOR ACCEPTABLE pH*
Yes ☒ No ☐ No VOA Vials ☐ *06/14/13 @1215*
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:

6
≤ 2 or >12 unless noted

Adjusted? *Yes*

Checked by: *[Signature]*

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

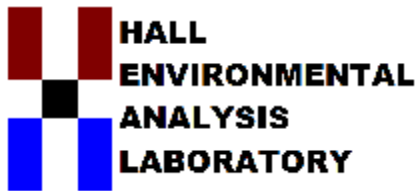
Client Instructions:

17. Additional remarks:

-0010, -0020, -0030 - SAMPLED - HELD IN LOG IN FOR 24 HRS AFTER PRESERVATION

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.0	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 08, 2013

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 2013 2nd QTR

OrderNo.: 1306595

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 9 sample(s) on 6/14/2013 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 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-2

Project: 2013 2nd QTR

Collection Date: 6/12/2013 10:45:00 AM

Lab ID: 1306595-001

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2013 6:38:51 PM	7930
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2013 6:38:51 PM	7930
Surr: DNOP	120	75.4-146		%REC	1	6/14/2013 6:38:51 PM	7930
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/18/2013 1:40:55 AM	R11360
Surr: BFB	157	51.5-151	S	%REC	1	6/18/2013 1:40:55 AM	R11360
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	ND	1.0		mg/L	10	6/14/2013 10:29:06 PM	R11342
Chloride	960	50		mg/L	100	6/14/2013 10:41:31 PM	R11342
Bromide	3.5	1.0		mg/L	10	6/14/2013 10:29:06 PM	R11342
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	6/14/2013 10:29:06 PM	R11342
Sulfate	1000	50		mg/L	100	6/14/2013 10:41:31 PM	R11342
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/20/2013 12:55:57 AM	R11437
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.029	0.0020		mg/L	1	6/19/2013 5:50:42 PM	R11414
Cadmium	ND	0.0020		mg/L	1	6/24/2013 7:10:19 PM	R11531
Calcium	410	5.0		mg/L	5	6/19/2013 5:53:31 PM	R11414
Chromium	ND	0.0060		mg/L	1	6/19/2013 5:50:42 PM	R11414
Copper	0.011	0.0060		mg/L	1	6/24/2013 7:10:19 PM	R11531
Iron	0.12	0.020		mg/L	1	6/19/2013 5:50:42 PM	R11414
Magnesium	70	1.0		mg/L	1	6/19/2013 5:50:42 PM	R11414
Manganese	1.3	0.010	*	mg/L	5	6/19/2013 5:53:31 PM	R11414
Potassium	5.7	1.0		mg/L	1	6/19/2013 5:50:42 PM	R11414
Silver	ND	0.10		mg/L	20	6/24/2013 7:13:08 PM	R11531
Sodium	1100	20		mg/L	20	6/25/2013 6:10:32 PM	R11552
Zinc	0.020	0.010		mg/L	1	6/19/2013 5:50:42 PM	R11414
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.068	0.0020		mg/L	1	6/27/2013 11:14:46 AM	7938
Cadmium	ND	0.0020		mg/L	1	6/27/2013 11:14:46 AM	7938
Chromium	ND	0.0060		mg/L	1	6/27/2013 11:14:46 AM	7938
Copper	0.012	0.0060		mg/L	1	6/27/2013 11:14:46 AM	7938
Iron	1.6	0.10	*	mg/L	5	6/27/2013 11:17:24 AM	7938
Manganese	1.1	0.010	*	mg/L	5	6/27/2013 11:17:24 AM	7938
Silver	ND	0.025		mg/L	5	6/27/2013 11:17:24 AM	7938
Zinc	0.021	0.010		mg/L	1	6/27/2013 11:14:46 AM	7938
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0093	0.0010		mg/L	1	6/26/2013 4:47:44 PM	R11577
Lead	0.0081	0.0010		mg/L	1	6/26/2013 4:47:44 PM	R11577

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-2

Project: 2013 2nd QTR

Collection Date: 6/12/2013 10:45:00 AM

Lab ID: 1306595-001

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Selenium	0.023	0.0010		mg/L	1	6/26/2013 4:47:44 PM	R11577
Uranium	0.17	0.010	*	mg/L	10	6/28/2013 1:37:51 PM	R11643
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	6/27/2013 1:35:46 PM	7938
Selenium	0.019	0.010		mg/L	10	6/27/2013 1:35:46 PM	7938
Uranium	0.17	0.010	*	mg/L	10	6/27/2013 1:35:46 PM	7938
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/18/2013 12:18:26 PM	7959
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Toluene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Ethylbenzene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Methyl tert-butyl ether (MTBE)	2.6	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Naphthalene	ND	2.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Acetone	11	10		µg/L	1	6/19/2013 1:43:51 PM	R11424
Bromobenzene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Bromoform	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Bromomethane	ND	3.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
2-Butanone	ND	10		µg/L	1	6/19/2013 1:43:51 PM	R11424
Carbon disulfide	ND	10		µg/L	1	6/19/2013 1:43:51 PM	R11424
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Chlorobenzene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Chloroethane	ND	2.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Chloroform	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Chloromethane	ND	3.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Dibromomethane	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-2

Project: 2013 2nd QTR

Collection Date: 6/12/2013 10:45:00 AM

Lab ID: 1306595-001

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
2-Hexanone	ND	10		µg/L	1	6/19/2013 1:43:51 PM	R11424
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2013 1:43:51 PM	R11424
Methylene Chloride	ND	3.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Styrene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Vinyl chloride	ND	1.0		µg/L	1	6/19/2013 1:43:51 PM	R11424
Xylenes, Total	ND	1.5		µg/L	1	6/19/2013 1:43:51 PM	R11424
Surr: 1,2-Dichloroethane-d4	96.2	70-130		%REC	1	6/19/2013 1:43:51 PM	R11424
Surr: 4-Bromofluorobenzene	95.7	69.5-130		%REC	1	6/19/2013 1:43:51 PM	R11424
Surr: Dibromofluoromethane	106	70-130		%REC	1	6/19/2013 1:43:51 PM	R11424
Surr: Toluene-d8	106	70-130		%REC	1	6/19/2013 1:43:51 PM	R11424

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GW-1

Project: 2013 2nd QTR

Collection Date: 6/12/2013 11:00:00 AM

Lab ID: 1306595-002

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	3.9	1.0		mg/L	1	6/14/2013 7:00:33 PM	7930
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2013 7:00:33 PM	7930
Surr: DNOP	111	75.4-146		%REC	1	6/14/2013 7:00:33 PM	7930
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.66	0.25		mg/L	5	6/18/2013 2:11:12 AM	R11360
Surr: BFB	291	51.5-151	S	%REC	5	6/18/2013 2:11:12 AM	R11360
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	2.7	1.0		mg/L	10	6/14/2013 10:53:55 PM	R11342
Chloride	940	50		mg/L	100	6/14/2013 11:06:20 PM	R11342
Bromide	2.4	1.0		mg/L	10	6/14/2013 10:53:55 PM	R11342
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	6/14/2013 10:53:55 PM	R11342
Sulfate	88	5.0		mg/L	10	6/14/2013 10:53:55 PM	R11342
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/20/2013 1:08:21 AM	R11437
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.87	0.0020		mg/L	1	6/19/2013 6:07:34 PM	R11414
Cadmium	ND	0.0020		mg/L	1	6/24/2013 7:15:34 PM	R11531
Calcium	300	5.0		mg/L	5	6/19/2013 6:09:57 PM	R11414
Chromium	ND	0.0060		mg/L	1	6/19/2013 6:07:34 PM	R11414
Copper	ND	0.0060		mg/L	1	6/24/2013 7:15:34 PM	R11531
Iron	8.1	0.40	*	mg/L	20	6/24/2013 7:20:15 PM	R11531
Magnesium	66	1.0		mg/L	1	6/19/2013 6:07:34 PM	R11414
Manganese	3.2	0.010	*	mg/L	5	6/24/2013 7:17:56 PM	R11531
Potassium	4.1	1.0		mg/L	1	6/19/2013 6:07:34 PM	R11414
Silver	ND	0.025		mg/L	5	6/24/2013 7:17:56 PM	R11531
Sodium	1000	20		mg/L	20	6/25/2013 6:12:57 PM	R11552
Zinc	0.017	0.010		mg/L	1	6/19/2013 6:07:34 PM	R11414
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.93	0.0020		mg/L	1	6/27/2013 11:19:55 AM	7938
Cadmium	ND	0.0020		mg/L	1	6/27/2013 11:19:55 AM	7938
Chromium	ND	0.0060		mg/L	1	6/27/2013 11:19:55 AM	7938
Copper	ND	0.0060		mg/L	1	6/27/2013 11:19:55 AM	7938
Iron	11	0.40	*	mg/L	20	6/27/2013 12:24:48 PM	7938
Manganese	3.1	0.010	*	mg/L	5	6/27/2013 11:22:16 AM	7938
Silver	ND	0.025		mg/L	5	6/27/2013 11:22:16 AM	7938
Zinc	0.019	0.010		mg/L	1	6/27/2013 11:19:55 AM	7938
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.12	0.0050	*	mg/L	5	6/28/2013 1:40:31 PM	R11643
Lead	0.0024	0.0010		mg/L	1	6/26/2013 5:55:26 PM	R11577

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: 2013 2nd QTR

Collection Date: 6/12/2013 11:00:00 AM

Lab ID: 1306595-002

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Selenium	0.020	0.0050		mg/L	5	6/28/2013 1:40:31 PM	R11643
Uranium	0.0068	0.0050		mg/L	5	6/28/2013 1:40:31 PM	R11643
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.15	0.0050	*	mg/L	5	6/27/2013 1:38:12 PM	7938
Selenium	0.013	0.0050		mg/L	5	6/27/2013 1:38:12 PM	7938
Uranium	0.0073	0.0050		mg/L	5	6/27/2013 1:38:12 PM	7938
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/18/2013 12:20:16 PM	7959
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	7.7	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Toluene	4.8	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Ethylbenzene	3.9	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Methyl tert-butyl ether (MTBE)	40	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1,2,4-Trimethylbenzene	13	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1,3,5-Trimethylbenzene	2.7	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Naphthalene	ND	2.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1-Methylnaphthalene	18	4.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Acetone	13	10		µg/L	1	6/19/2013 3:54:32 AM	R11386
Bromobenzene	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Bromoform	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Bromomethane	ND	3.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
2-Butanone	ND	10		µg/L	1	6/19/2013 3:54:32 AM	R11386
Carbon disulfide	ND	10		µg/L	1	6/19/2013 3:54:32 AM	R11386
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Chlorobenzene	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Chloroethane	ND	2.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Chloroform	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Chloromethane	ND	3.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Dibromomethane	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: 2013 2nd QTR

Collection Date: 6/12/2013 11:00:00 AM

Lab ID: 1306595-002

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
2-Hexanone	ND	10		µg/L	1	6/19/2013 3:54:32 AM	R11386
Isopropylbenzene	1.2	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2013 3:54:32 AM	R11386
Methylene Chloride	ND	3.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
n-Propylbenzene	1.8	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Styrene	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Vinyl chloride	ND	1.0		µg/L	1	6/19/2013 3:54:32 AM	R11386
Xylenes, Total	18	1.5		µg/L	1	6/19/2013 3:54:32 AM	R11386
Surr: 1,2-Dichloroethane-d4	97.5	70-130		%REC	1	6/19/2013 3:54:32 AM	R11386
Surr: 4-Bromofluorobenzene	87.1	69.5-130		%REC	1	6/19/2013 3:54:32 AM	R11386
Surr: Dibromofluoromethane	101	70-130		%REC	1	6/19/2013 3:54:32 AM	R11386
Surr: Toluene-d8	102	70-130		%REC	1	6/19/2013 3:54:32 AM	R11386

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 2nd QTR

Collection Date: 6/12/2013 11:45:00 AM

Lab ID: 1306595-003

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	7.1	1.0		mg/L	1	6/14/2013 7:22:19 PM	7930
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2013 7:22:19 PM	7930
Surr: DNOP	119	75.4-146		%REC	1	6/14/2013 7:22:19 PM	7930
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.94	0.25		mg/L	5	6/18/2013 2:41:22 AM	R11360
Surr: BFB	126	51.5-151		%REC	5	6/18/2013 2:41:22 AM	R11360
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.6	1.0		mg/L	10	6/14/2013 11:18:44 PM	R11342
Chloride	1800	50		mg/L	100	6/14/2013 11:31:09 PM	R11342
Bromide	4.6	1.0		mg/L	10	6/14/2013 11:18:44 PM	R11342
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	6/14/2013 11:18:44 PM	R11342
Sulfate	41	5.0		mg/L	10	6/14/2013 11:18:44 PM	R11342
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/20/2013 1:20:45 AM	R11437
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.65	0.0020		mg/L	1	6/19/2013 6:12:15 PM	R11414
Cadmium	ND	0.0020		mg/L	1	6/24/2013 7:22:29 PM	R11531
Calcium	160	5.0		mg/L	5	6/19/2013 6:14:41 PM	R11414
Chromium	ND	0.0060		mg/L	1	6/19/2013 6:12:15 PM	R11414
Copper	ND	0.0060		mg/L	1	6/24/2013 7:22:29 PM	R11531
Iron	6.2	0.40	*	mg/L	20	6/24/2013 7:27:12 PM	R11531
Magnesium	28	1.0		mg/L	1	6/19/2013 6:12:15 PM	R11414
Manganese	2.7	0.010	*	mg/L	5	6/24/2013 7:24:53 PM	R11531
Potassium	7.5	1.0		mg/L	1	6/19/2013 6:12:15 PM	R11414
Silver	ND	0.025		mg/L	5	6/24/2013 7:24:53 PM	R11531
Sodium	1200	20		mg/L	20	6/25/2013 6:15:12 PM	R11552
Zinc	0.038	0.010		mg/L	1	6/19/2013 6:12:15 PM	R11414
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.75	0.0020		mg/L	1	6/27/2013 11:24:34 AM	7938
Cadmium	ND	0.0020		mg/L	1	6/27/2013 11:24:34 AM	7938
Chromium	0.011	0.0060		mg/L	1	6/27/2013 11:24:34 AM	7938
Copper	0.024	0.0060		mg/L	1	6/27/2013 11:24:34 AM	7938
Iron	10	0.40	*	mg/L	20	6/27/2013 12:27:02 PM	7938
Manganese	2.4	0.010	*	mg/L	5	6/27/2013 11:27:07 AM	7938
Silver	ND	0.025		mg/L	5	6/27/2013 11:27:07 AM	7938
Zinc	0.058	0.010		mg/L	1	6/27/2013 11:24:34 AM	7938
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.013	0.0010	*	mg/L	1	6/26/2013 4:58:27 PM	R11577
Lead	0.0018	0.0010		mg/L	1	6/26/2013 4:58:27 PM	R11577

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Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 2nd QTR

Collection Date: 6/12/2013 11:45:00 AM

Lab ID: 1306595-003

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Selenium	0.030	0.0010		mg/L	1	6/26/2013 4:58:27 PM	R11577
Uranium	0.053	0.0050	*	mg/L	5	6/28/2013 1:43:10 PM	R11643
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.012	0.010	*	mg/L	10	6/25/2013 5:13:23 PM	7938
Selenium	0.022	0.010		mg/L	10	6/25/2013 5:13:23 PM	7938
Uranium	0.049	0.010	*	mg/L	10	6/25/2013 5:13:23 PM	7938
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/18/2013 12:21:59 PM	7959
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Acenaphthylene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Aniline	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Anthracene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Azobenzene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Benz(a)anthracene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Benzo(a)pyrene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Benzo(b)fluoranthene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Benzo(k)fluoranthene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Benzoic acid	ND	20		µg/L	1	6/19/2013 7:56:00 AM	7975
Benzyl alcohol	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Butyl benzyl phthalate	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Carbazole	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
4-Chloroaniline	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
2-Chloronaphthalene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
2-Chlorophenol	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Chrysene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Di-n-butyl phthalate	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Di-n-octyl phthalate	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Dibenzofuran	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
1,2-Dichlorobenzene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 2nd QTR

Collection Date: 6/12/2013 11:45:00 AM

Lab ID: 1306595-003

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
1,3-Dichlorobenzene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
1,4-Dichlorobenzene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Diethyl phthalate	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Dimethyl phthalate	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
2,4-Dichlorophenol	ND	20		µg/L	1	6/19/2013 7:56:00 AM	7975
2,4-Dimethylphenol	23	10		µg/L	1	6/19/2013 7:56:00 AM	7975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/19/2013 7:56:00 AM	7975
2,4-Dinitrophenol	ND	20		µg/L	1	6/19/2013 7:56:00 AM	7975
2,4-Dinitrotoluene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
2,6-Dinitrotoluene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Fluoranthene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Fluorene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Hexachlorobenzene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Hexachlorobutadiene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Hexachloroethane	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Isophorone	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
1-Methylnaphthalene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
2-Methylnaphthalene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
2-Methylphenol	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
3+4-Methylphenol	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
N-Nitrosodimethylamine	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Naphthalene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
2-Nitroaniline	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
3-Nitroaniline	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
4-Nitroaniline	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Nitrobenzene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
2-Nitrophenol	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
4-Nitrophenol	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Pentachlorophenol	ND	20		µg/L	1	6/19/2013 7:56:00 AM	7975
Phenanthrene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Phenol	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Pyrene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Pyridine	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 2nd QTR

Collection Date: 6/12/2013 11:45:00 AM

Lab ID: 1306595-003

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/19/2013 7:56:00 AM	7975
Surr: 2,4,6-Tribromophenol	42.8	41.5-117		%REC	1	6/19/2013 7:56:00 AM	7975
Surr: 2-Fluorobiphenyl	53.6	29.1-112		%REC	1	6/19/2013 7:56:00 AM	7975
Surr: 2-Fluorophenol	43.3	11.9-98.6		%REC	1	6/19/2013 7:56:00 AM	7975
Surr: 4-Terphenyl-d14	45.4	46-111	S	%REC	1	6/19/2013 7:56:00 AM	7975
Surr: Nitrobenzene-d5	52.4	34.9-112		%REC	1	6/19/2013 7:56:00 AM	7975
Surr: Phenol-d5	32.6	17.5-88.3		%REC	1	6/19/2013 7:56:00 AM	7975
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	71	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Toluene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Ethylbenzene	10	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Methyl tert-butyl ether (MTBE)	510	10		µg/L	10	6/19/2013 4:23:12 AM	R11386
1,2,4-Trimethylbenzene	2.0	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
1,3,5-Trimethylbenzene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
1,2-Dichloroethane (EDC)	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
1,2-Dibromoethane (EDB)	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Naphthalene	ND	4.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
1-Methylnaphthalene	14	8.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
2-Methylnaphthalene	ND	8.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Acetone	ND	20		µg/L	2	6/19/2013 2:12:39 PM	R11424
Bromobenzene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Bromodichloromethane	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Bromoform	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Bromomethane	ND	6.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
2-Butanone	ND	20		µg/L	2	6/19/2013 2:12:39 PM	R11424
Carbon disulfide	ND	20		µg/L	2	6/19/2013 2:12:39 PM	R11424
Carbon Tetrachloride	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Chlorobenzene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Chloroethane	ND	4.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Chloroform	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Chloromethane	ND	6.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
2-Chlorotoluene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
4-Chlorotoluene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
cis-1,2-DCE	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
cis-1,3-Dichloropropene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
1,2-Dibromo-3-chloropropane	ND	4.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Dibromochloromethane	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Dibromomethane	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
1,2-Dichlorobenzene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
1,3-Dichlorobenzene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424

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Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 2nd QTR

Collection Date: 6/12/2013 11:45:00 AM

Lab ID: 1306595-003

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
1,4-Dichlorobenzene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Dichlorodifluoromethane	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
1,1-Dichloroethane	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
1,1-Dichloroethene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
1,2-Dichloropropane	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
1,3-Dichloropropane	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
2,2-Dichloropropane	ND	4.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
1,1-Dichloropropene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Hexachlorobutadiene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
2-Hexanone	ND	20		µg/L	2	6/19/2013 2:12:39 PM	R11424
Isopropylbenzene	2.2	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
4-Isopropyltoluene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
4-Methyl-2-pentanone	ND	20		µg/L	2	6/19/2013 2:12:39 PM	R11424
Methylene Chloride	ND	6.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
n-Butylbenzene	ND	6.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
n-Propylbenzene	2.3	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
sec-Butylbenzene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Styrene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
tert-Butylbenzene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
1,1,1,2-Tetrachloroethane	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
1,1,2,2-Tetrachloroethane	ND	4.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Tetrachloroethene (PCE)	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
trans-1,2-DCE	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
trans-1,3-Dichloropropene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
1,2,3-Trichlorobenzene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
1,2,4-Trichlorobenzene	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
1,1,1-Trichloroethane	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
1,1,2-Trichloroethane	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Trichloroethene (TCE)	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Trichlorofluoromethane	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
1,2,3-Trichloropropane	ND	4.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Vinyl chloride	ND	2.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Xylenes, Total	3.3	3.0		µg/L	2	6/19/2013 2:12:39 PM	R11424
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	2	6/19/2013 2:12:39 PM	R11424
Surr: 4-Bromofluorobenzene	92.6	69.5-130		%REC	2	6/19/2013 2:12:39 PM	R11424
Surr: Dibromofluoromethane	105	70-130		%REC	2	6/19/2013 2:12:39 PM	R11424
Surr: Toluene-d8	103	70-130		%REC	2	6/19/2013 2:12:39 PM	R11424

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Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2013 2nd QTR

Collection Date: 6/12/2013 1:30:00 PM

Lab ID: 1306595-004

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	1.9	1.0		mg/L	1	6/14/2013 7:44:04 PM	7930
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2013 7:44:04 PM	7930
Surr: DNOP	127	75.4-146		%REC	1	6/14/2013 7:44:04 PM	7930
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.74	0.050		mg/L	1	6/18/2013 3:11:41 AM	R11360
Surr: BFB	191	51.5-151	S	%REC	1	6/18/2013 3:11:41 AM	R11360
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	300	25		µg/L	10	6/18/2013 2:29:00 PM	R11387
Benzene	13	1.0		µg/L	1	6/18/2013 3:11:41 AM	R11360
Toluene	ND	1.0		µg/L	1	6/18/2013 3:11:41 AM	R11360
Ethylbenzene	47	1.0		µg/L	1	6/18/2013 3:11:41 AM	R11360
Xylenes, Total	ND	2.0		µg/L	1	6/18/2013 3:11:41 AM	R11360
1,2,4-Trimethylbenzene	1.8	1.0		µg/L	1	6/18/2013 3:11:41 AM	R11360
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/18/2013 3:11:41 AM	R11360
Surr: 4-Bromofluorobenzene	151	69.4-129	S	%REC	1	6/18/2013 3:11:41 AM	R11360
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.6	1.0		mg/L	10	6/15/2013 12:08:24 AM	R11342
Chloride	230	50		mg/L	100	6/15/2013 12:20:48 AM	R11342
Bromide	1.2	1.0		mg/L	10	6/15/2013 12:08:24 AM	R11342
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	6/15/2013 12:08:24 AM	R11342
Sulfate	7.8	5.0		mg/L	10	6/15/2013 12:08:24 AM	R11342
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/20/2013 1:33:10 AM	R11437
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	1.9	0.010		mg/L	5	6/19/2013 6:19:21 PM	R11414
Cadmium	ND	0.0020		mg/L	1	6/24/2013 7:38:45 PM	R11531
Calcium	92	1.0		mg/L	1	6/19/2013 6:17:02 PM	R11414
Chromium	ND	0.0060		mg/L	1	6/19/2013 6:17:02 PM	R11414
Copper	ND	0.0060		mg/L	1	6/24/2013 7:38:45 PM	R11531
Iron	1.7	0.10	*	mg/L	5	6/19/2013 6:19:21 PM	R11414
Magnesium	16	1.0		mg/L	1	6/19/2013 6:17:02 PM	R11414
Manganese	1.6	0.010	*	mg/L	5	6/24/2013 7:41:06 PM	R11531
Potassium	1.7	1.0		mg/L	1	6/19/2013 6:17:02 PM	R11414
Silver	ND	0.025		mg/L	5	6/24/2013 7:41:06 PM	R11531
Sodium	360	5.0		mg/L	5	6/19/2013 6:19:21 PM	R11414
Zinc	0.010	0.010		mg/L	1	6/19/2013 6:17:02 PM	R11414
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	2.0	0.010	*	mg/L	5	6/27/2013 11:31:41 AM	7938
Cadmium	ND	0.0020		mg/L	1	6/27/2013 11:29:22 AM	7938

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

Qualifiers:

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- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2013 2nd QTR

Collection Date: 6/12/2013 1:30:00 PM

Lab ID: 1306595-004

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Chromium	ND	0.0060		mg/L	1	6/27/2013 11:29:22 AM	7938
Copper	ND	0.0060		mg/L	1	6/27/2013 11:29:22 AM	7938
Iron	3.2	0.10	*	mg/L	5	6/27/2013 11:31:41 AM	7938
Manganese	1.5	0.010	*	mg/L	5	6/27/2013 11:31:41 AM	7938
Silver	ND	0.025		mg/L	5	6/27/2013 11:31:41 AM	7938
Zinc	ND	0.010		mg/L	1	6/27/2013 11:29:22 AM	7938
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0068	0.0010		mg/L	1	6/26/2013 5:07:30 PM	R11577
Lead	ND	0.0010		mg/L	1	6/26/2013 5:07:30 PM	R11577
Selenium	0.0071	0.0010		mg/L	1	6/26/2013 5:07:30 PM	R11577
Uranium	ND	0.0010		mg/L	1	6/28/2013 1:45:50 PM	R11643
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0070	0.0010		mg/L	1	6/25/2013 5:15:49 PM	7938
Selenium	0.0051	0.0010		mg/L	1	6/25/2013 5:15:49 PM	7938
Uranium	ND	0.0010		mg/L	1	6/25/2013 5:15:49 PM	7938
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/18/2013 12:23:43 PM	7959
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Acenaphthylene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Aniline	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Anthracene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Azobenzene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Benz(a)anthracene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Benzo(a)pyrene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Benzo(b)fluoranthene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Benzo(k)fluoranthene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Benzoic acid	ND	20		µg/L	1	6/19/2013 8:26:36 AM	7975
Benzyl alcohol	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Butyl benzyl phthalate	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Carbazole	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975

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Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2013 2nd QTR

Collection Date: 6/12/2013 1:30:00 PM

Lab ID: 1306595-004

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
4-Chloroaniline	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
2-Chloronaphthalene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
2-Chlorophenol	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Chrysene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Di-n-butyl phthalate	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Di-n-octyl phthalate	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Dibenzofuran	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
1,2-Dichlorobenzene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
1,3-Dichlorobenzene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
1,4-Dichlorobenzene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Diethyl phthalate	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Dimethyl phthalate	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
2,4-Dichlorophenol	ND	20		µg/L	1	6/19/2013 8:26:36 AM	7975
2,4-Dimethylphenol	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/19/2013 8:26:36 AM	7975
2,4-Dinitrophenol	ND	20		µg/L	1	6/19/2013 8:26:36 AM	7975
2,4-Dinitrotoluene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
2,6-Dinitrotoluene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Fluoranthene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Fluorene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Hexachlorobenzene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Hexachlorobutadiene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Hexachloroethane	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Isophorone	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
1-Methylnaphthalene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
2-Methylnaphthalene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
2-Methylphenol	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
3+4-Methylphenol	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
N-Nitrosodimethylamine	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Naphthalene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
2-Nitroaniline	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
3-Nitroaniline	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
4-Nitroaniline	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2013 2nd QTR

Collection Date: 6/12/2013 1:30:00 PM

Lab ID: 1306595-004

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC	
Nitrobenzene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
2-Nitrophenol	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
4-Nitrophenol	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Pentachlorophenol	ND	20		µg/L	1	6/19/2013 8:26:36 AM	7975
Phenanthrene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Phenol	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Pyrene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Pyridine	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/19/2013 8:26:36 AM	7975
Surr: 2,4,6-Tribromophenol	72.0	41.5-117		%REC	1	6/19/2013 8:26:36 AM	7975
Surr: 2-Fluorobiphenyl	69.0	29.1-112		%REC	1	6/19/2013 8:26:36 AM	7975
Surr: 2-Fluorophenol	43.7	11.9-98.6		%REC	1	6/19/2013 8:26:36 AM	7975
Surr: 4-Terphenyl-d14	60.8	46-111		%REC	1	6/19/2013 8:26:36 AM	7975
Surr: Nitrobenzene-d5	69.5	34.9-112		%REC	1	6/19/2013 8:26:36 AM	7975
Surr: Phenol-d5	36.1	17.5-88.3		%REC	1	6/19/2013 8:26:36 AM	7975

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2013 2nd QTR

Collection Date: 6/12/2013 1:45:00 PM

Lab ID: 1306595-005

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2013 8:06:02 PM	7930
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2013 8:06:02 PM	7930
Surr: DNOP	118	75.4-146		%REC	1	6/14/2013 8:06:02 PM	7930
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.072	0.050		mg/L	1	6/18/2013 4:12:07 AM	R11360
Surr: BFB	115	51.5-151		%REC	1	6/18/2013 4:12:07 AM	R11360
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	31	2.5		µg/L	1	6/18/2013 4:12:07 AM	R11360
Benzene	9.0	1.0		µg/L	1	6/18/2013 4:12:07 AM	R11360
Toluene	ND	1.0		µg/L	1	6/18/2013 4:12:07 AM	R11360
Ethylbenzene	8.3	1.0		µg/L	1	6/18/2013 4:12:07 AM	R11360
Xylenes, Total	ND	2.0		µg/L	1	6/18/2013 4:12:07 AM	R11360
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/18/2013 4:12:07 AM	R11360
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/18/2013 4:12:07 AM	R11360
Surr: 4-Bromofluorobenzene	115	69.4-129		%REC	1	6/18/2013 4:12:07 AM	R11360
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.4	1.0		mg/L	10	6/15/2013 12:33:13 AM	R11342
Chloride	190	5.0		mg/L	10	6/15/2013 12:33:13 AM	R11342
Bromide	1.1	1.0		mg/L	10	6/15/2013 12:33:13 AM	R11342
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	6/15/2013 12:33:13 AM	R11342
Sulfate	33	5.0		mg/L	10	6/15/2013 12:33:13 AM	R11342
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/20/2013 1:45:35 AM	R11437
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.14	0.0020		mg/L	1	6/19/2013 6:21:35 PM	R11414
Cadmium	ND	0.0020		mg/L	1	6/24/2013 7:43:19 PM	R11531
Calcium	83	1.0		mg/L	1	6/19/2013 6:21:35 PM	R11414
Chromium	ND	0.0060		mg/L	1	6/19/2013 6:21:35 PM	R11414
Copper	ND	0.0060		mg/L	1	6/24/2013 7:43:19 PM	R11531
Iron	ND	0.020		mg/L	1	6/19/2013 6:21:35 PM	R11414
Magnesium	12	1.0		mg/L	1	6/19/2013 6:21:35 PM	R11414
Manganese	0.31	0.0020	*	mg/L	1	6/24/2013 7:43:19 PM	R11531
Potassium	2.3	1.0		mg/L	1	6/19/2013 6:21:35 PM	R11414
Silver	ND	0.0050		mg/L	1	6/24/2013 7:43:19 PM	R11531
Sodium	310	5.0		mg/L	5	6/19/2013 6:24:14 PM	R11414
Zinc	ND	0.010		mg/L	1	6/19/2013 6:21:35 PM	R11414
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.16	0.0020		mg/L	1	6/27/2013 11:33:54 AM	7938
Cadmium	ND	0.0020		mg/L	1	6/27/2013 11:33:54 AM	7938

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2013 2nd QTR

Collection Date: 6/12/2013 1:45:00 PM

Lab ID: 1306595-005

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Chromium	ND	0.0060		mg/L	1	6/27/2013 11:33:54 AM	7938
Copper	ND	0.0060		mg/L	1	6/27/2013 11:33:54 AM	7938
Iron	0.40	0.020	*	mg/L	1	6/27/2013 11:33:54 AM	7938
Manganese	0.35	0.0020	*	mg/L	1	6/27/2013 11:33:54 AM	7938
Silver	ND	0.025		mg/L	5	6/27/2013 11:36:29 AM	7938
Zinc	ND	0.010		mg/L	1	6/27/2013 11:33:54 AM	7938
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0030	0.0010		mg/L	1	6/26/2013 5:10:12 PM	R11577
Lead	ND	0.0010		mg/L	1	6/26/2013 5:10:12 PM	R11577
Selenium	0.0077	0.0010		mg/L	1	6/26/2013 5:10:12 PM	R11577
Uranium	0.015	0.0010		mg/L	1	6/28/2013 1:48:29 PM	R11643
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0019	0.0010		mg/L	1	6/25/2013 5:18:15 PM	7938
Selenium	0.0030	0.0010		mg/L	1	6/25/2013 5:18:15 PM	7938
Uranium	0.014	0.0010		mg/L	1	6/25/2013 5:18:15 PM	7938
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/18/2013 12:25:27 PM	7959
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Acenaphthylene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Aniline	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Anthracene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Azobenzene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Benz(a)anthracene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Benzo(a)pyrene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Benzo(b)fluoranthene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Benzo(k)fluoranthene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Benzoic acid	ND	20		µg/L	1	6/19/2013 8:57:18 AM	7975
Benzyl alcohol	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Butyl benzyl phthalate	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Carbazole	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2013 2nd QTR

Collection Date: 6/12/2013 1:45:00 PM

Lab ID: 1306595-005

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
4-Chloroaniline	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
2-Chloronaphthalene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
2-Chlorophenol	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Chrysene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Di-n-butyl phthalate	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Di-n-octyl phthalate	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Dibenzofuran	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
1,2-Dichlorobenzene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
1,3-Dichlorobenzene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
1,4-Dichlorobenzene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Diethyl phthalate	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Dimethyl phthalate	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
2,4-Dichlorophenol	ND	20		µg/L	1	6/19/2013 8:57:18 AM	7975
2,4-Dimethylphenol	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/19/2013 8:57:18 AM	7975
2,4-Dinitrophenol	ND	20		µg/L	1	6/19/2013 8:57:18 AM	7975
2,4-Dinitrotoluene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
2,6-Dinitrotoluene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Fluoranthene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Fluorene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Hexachlorobenzene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Hexachlorobutadiene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Hexachloroethane	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Isophorone	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
1-Methylnaphthalene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
2-Methylnaphthalene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
2-Methylphenol	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
3+4-Methylphenol	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
N-Nitrosodimethylamine	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Naphthalene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
2-Nitroaniline	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
3-Nitroaniline	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
4-Nitroaniline	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2013 2nd QTR

Collection Date: 6/12/2013 1:45:00 PM

Lab ID: 1306595-005

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC	
Nitrobenzene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
2-Nitrophenol	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
4-Nitrophenol	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Pentachlorophenol	ND	20		µg/L	1	6/19/2013 8:57:18 AM	7975
Phenanthrene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Phenol	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Pyrene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Pyridine	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/19/2013 8:57:18 AM	7975
Surr: 2,4,6-Tribromophenol	64.1	41.5-117		%REC	1	6/19/2013 8:57:18 AM	7975
Surr: 2-Fluorobiphenyl	71.7	29.1-112		%REC	1	6/19/2013 8:57:18 AM	7975
Surr: 2-Fluorophenol	36.3	11.9-98.6		%REC	1	6/19/2013 8:57:18 AM	7975
Surr: 4-Terphenyl-d14	60.8	46-111		%REC	1	6/19/2013 8:57:18 AM	7975
Surr: Nitrobenzene-d5	78.0	34.9-112		%REC	1	6/19/2013 8:57:18 AM	7975
Surr: Phenol-d5	27.7	17.5-88.3		%REC	1	6/19/2013 8:57:18 AM	7975

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
				Page 19 of 65

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2013 2nd QTR

Collection Date: 6/12/2013 2:00:00 PM

Lab ID: 1306595-006

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2013 8:49:29 PM	7930
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2013 8:49:29 PM	7930
Surr: DNOP	118	75.4-146		%REC	1	6/14/2013 8:49:29 PM	7930
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/18/2013 2:59:11 PM	R11387
Surr: BFB	89.0	51.5-151		%REC	1	6/18/2013 2:59:11 PM	R11387
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/18/2013 2:59:11 PM	R11387
Benzene	ND	1.0		µg/L	1	6/18/2013 2:59:11 PM	R11387
Toluene	ND	1.0		µg/L	1	6/18/2013 2:59:11 PM	R11387
Ethylbenzene	ND	1.0		µg/L	1	6/18/2013 2:59:11 PM	R11387
Xylenes, Total	ND	2.0		µg/L	1	6/18/2013 2:59:11 PM	R11387
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/18/2013 2:59:11 PM	R11387
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/18/2013 2:59:11 PM	R11387
Surr: 4-Bromofluorobenzene	102	69.4-129		%REC	1	6/18/2013 2:59:11 PM	R11387
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	ND	1.0		mg/L	10	6/15/2013 12:58:03 AM	R11342
Chloride	940	50		mg/L	100	6/15/2013 1:10:28 AM	R11342
Bromide	4.8	1.0		mg/L	10	6/15/2013 12:58:03 AM	R11342
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	6/15/2013 12:58:03 AM	R11342
Sulfate	400	5.0		mg/L	10	6/15/2013 12:58:03 AM	R11342
Nitrate+Nitrite as N	17	1.0	*	mg/L	5	6/20/2013 2:35:14 AM	R11437
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.094	0.0020		mg/L	1	6/19/2013 6:26:39 PM	R11414
Cadmium	ND	0.0020		mg/L	1	6/24/2013 7:48:23 PM	R11531
Calcium	48	1.0		mg/L	1	6/19/2013 6:26:39 PM	R11414
Chromium	ND	0.0060		mg/L	1	6/19/2013 6:26:39 PM	R11414
Copper	ND	0.0060		mg/L	1	6/24/2013 7:48:23 PM	R11531
Iron	0.57	0.020	*	mg/L	1	6/19/2013 6:26:39 PM	R11414
Magnesium	6.7	1.0		mg/L	1	6/19/2013 6:26:39 PM	R11414
Manganese	0.038	0.0020		mg/L	1	6/24/2013 7:48:23 PM	R11531
Potassium	5.4	1.0		mg/L	1	6/19/2013 6:26:39 PM	R11414
Silver	ND	0.0050		mg/L	1	6/24/2013 7:48:23 PM	R11531
Sodium	900	20		mg/L	20	6/25/2013 6:17:42 PM	R11552
Zinc	0.019	0.010		mg/L	1	6/19/2013 6:26:39 PM	R11414
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.85	0.0020		mg/L	1	6/27/2013 11:46:06 AM	7938
Cadmium	ND	0.0020		mg/L	1	6/27/2013 11:46:06 AM	7938

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2013 2nd QTR

Collection Date: 6/12/2013 2:00:00 PM

Lab ID: 1306595-006

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Chromium	0.036	0.0060		mg/L	1	6/27/2013 11:46:06 AM	7938
Copper	0.030	0.0060		mg/L	1	6/27/2013 11:46:06 AM	7938
Iron	15	0.40	*	mg/L	20	6/27/2013 12:29:15 PM	7938
Manganese	0.57	0.0020	*	mg/L	1	6/27/2013 11:46:06 AM	7938
Silver	ND	0.025		mg/L	5	6/27/2013 11:48:45 AM	7938
Zinc	0.26	0.010		mg/L	1	6/27/2013 11:46:06 AM	7938
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0077	0.0010		mg/L	1	6/26/2013 5:12:51 PM	R11577
Lead	0.0014	0.0010		mg/L	1	6/26/2013 5:12:51 PM	R11577
Selenium	0.032	0.0010		mg/L	1	6/26/2013 5:12:51 PM	R11577
Uranium	0.038	0.0010	*	mg/L	1	6/28/2013 1:51:08 PM	R11643
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0064	0.0010		mg/L	1	6/27/2013 1:40:40 PM	7938
Selenium	0.016	0.0010		mg/L	1	6/27/2013 1:40:40 PM	7938
Uranium	0.039	0.0010	*	mg/L	1	6/27/2013 1:40:40 PM	7938
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/18/2013 12:27:12 PM	7959
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Acenaphthylene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Aniline	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Anthracene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Azobenzene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Benz(a)anthracene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Benzo(a)pyrene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Benzo(b)fluoranthene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Benzo(k)fluoranthene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Benzoic acid	ND	20		µg/L	1	6/19/2013 3:01:47 PM	7975
Benzyl alcohol	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Butyl benzyl phthalate	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Carbazole	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2013 2nd QTR

Collection Date: 6/12/2013 2:00:00 PM

Lab ID: 1306595-006

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC	
4-Chloroaniline	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
2-Chloronaphthalene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
2-Chlorophenol	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Chrysene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Di-n-butyl phthalate	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Di-n-octyl phthalate	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Dibenzofuran	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
1,2-Dichlorobenzene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
1,3-Dichlorobenzene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
1,4-Dichlorobenzene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Diethyl phthalate	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Dimethyl phthalate	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
2,4-Dichlorophenol	ND	20		µg/L	1	6/19/2013 3:01:47 PM	7975
2,4-Dimethylphenol	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/19/2013 3:01:47 PM	7975
2,4-Dinitrophenol	ND	20		µg/L	1	6/19/2013 3:01:47 PM	7975
2,4-Dinitrotoluene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
2,6-Dinitrotoluene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Fluoranthene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Fluorene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Hexachlorobenzene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Hexachlorobutadiene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Hexachloroethane	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Isophorone	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
1-Methylnaphthalene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
2-Methylnaphthalene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
2-Methylphenol	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
3+4-Methylphenol	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
N-Nitrosodimethylamine	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Naphthalene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
2-Nitroaniline	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
3-Nitroaniline	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
4-Nitroaniline	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2013 2nd QTR

Collection Date: 6/12/2013 2:00:00 PM

Lab ID: 1306595-006

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC	
Nitrobenzene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
2-Nitrophenol	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
4-Nitrophenol	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Pentachlorophenol	ND	20		µg/L	1	6/19/2013 3:01:47 PM	7975
Phenanthrene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Phenol	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Pyrene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Pyridine	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/19/2013 3:01:47 PM	7975
Surr: 2,4,6-Tribromophenol	42.9	41.5-117		%REC	1	6/19/2013 3:01:47 PM	7975
Surr: 2-Fluorobiphenyl	40.0	29.1-112		%REC	1	6/19/2013 3:01:47 PM	7975
Surr: 2-Fluorophenol	34.8	11.9-98.6		%REC	1	6/19/2013 3:01:47 PM	7975
Surr: 4-Terphenyl-d14	44.1	46-111	S	%REC	1	6/19/2013 3:01:47 PM	7975
Surr: Nitrobenzene-d5	51.1	34.9-112		%REC	1	6/19/2013 3:01:47 PM	7975
Surr: Phenol-d5	25.3	17.5-88.3		%REC	1	6/19/2013 3:01:47 PM	7975

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

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2013 2nd QTR

Collection Date: 6/12/2013 2:35:00 PM

Lab ID: 1306595-007

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2013 9:11:10 PM	7930
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2013 9:11:10 PM	7930
Surr: DNOP	126	75.4-146		%REC	1	6/14/2013 9:11:10 PM	7930
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/18/2013 4:29:58 PM	R11387
Surr: BFB	90.4	51.5-151		%REC	1	6/18/2013 4:29:58 PM	R11387
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/18/2013 4:29:58 PM	R11387
Benzene	ND	1.0		µg/L	1	6/18/2013 4:29:58 PM	R11387
Toluene	ND	1.0		µg/L	1	6/18/2013 4:29:58 PM	R11387
Ethylbenzene	ND	1.0		µg/L	1	6/18/2013 4:29:58 PM	R11387
Xylenes, Total	ND	2.0		µg/L	1	6/18/2013 4:29:58 PM	R11387
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/18/2013 4:29:58 PM	R11387
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/18/2013 4:29:58 PM	R11387
Surr: 4-Bromofluorobenzene	105	69.4-129		%REC	1	6/18/2013 4:29:58 PM	R11387
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	ND	1.0		mg/L	10	6/15/2013 1:22:52 AM	R11342
Chloride	89	5.0		mg/L	10	6/15/2013 1:22:52 AM	R11342
Bromide	2.0	1.0		mg/L	10	6/15/2013 1:22:52 AM	R11342
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	6/15/2013 1:22:52 AM	R11342
Sulfate	35	5.0		mg/L	10	6/15/2013 1:22:52 AM	R11342
Nitrate+Nitrite as N	3.3	1.0		mg/L	5	6/20/2013 2:47:39 AM	R11437
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.13	0.0020		mg/L	1	6/19/2013 6:42:46 PM	R11414
Cadmium	ND	0.0020		mg/L	1	6/24/2013 7:53:20 PM	R11531
Calcium	77	1.0		mg/L	1	6/19/2013 6:42:46 PM	R11414
Chromium	ND	0.0060		mg/L	1	6/19/2013 6:42:46 PM	R11414
Copper	ND	0.0060		mg/L	1	6/24/2013 7:53:20 PM	R11531
Iron	0.057	0.020		mg/L	1	6/19/2013 6:42:46 PM	R11414
Magnesium	12	1.0		mg/L	1	6/19/2013 6:42:46 PM	R11414
Manganese	0.027	0.0020		mg/L	1	6/24/2013 7:53:20 PM	R11531
Potassium	1.4	1.0		mg/L	1	6/19/2013 6:42:46 PM	R11414
Silver	ND	0.0050		mg/L	1	6/24/2013 7:53:20 PM	R11531
Sodium	340	5.0		mg/L	5	6/19/2013 6:45:31 PM	R11414
Zinc	ND	0.010		mg/L	1	6/19/2013 6:42:46 PM	R11414
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.13	0.0020		mg/L	1	6/27/2013 11:50:59 AM	7938
Cadmium	ND	0.0020		mg/L	1	6/27/2013 11:50:59 AM	7938

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2013 2nd QTR

Collection Date: 6/12/2013 2:35:00 PM

Lab ID: 1306595-007

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Chromium	ND	0.0060		mg/L	1	6/27/2013 11:50:59 AM	7938
Copper	ND	0.0060		mg/L	1	6/27/2013 11:50:59 AM	7938
Iron	0.25	0.020		mg/L	1	6/27/2013 11:50:59 AM	7938
Manganese	0.068	0.0020	*	mg/L	1	6/27/2013 11:50:59 AM	7938
Silver	ND	0.025		mg/L	5	6/27/2013 11:53:40 AM	7938
Zinc	ND	0.010		mg/L	1	6/27/2013 11:50:59 AM	7938
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0034	0.0010		mg/L	1	6/26/2013 5:15:31 PM	R11577
Lead	ND	0.0010		mg/L	1	6/26/2013 5:15:31 PM	R11577
Selenium	0.011	0.0010		mg/L	1	6/26/2013 5:15:31 PM	R11577
Uranium	0.011	0.0010		mg/L	1	6/28/2013 1:53:48 PM	R11643
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0027	0.0010		mg/L	1	6/25/2013 5:20:41 PM	7938
Selenium	0.0076	0.0010		mg/L	1	6/25/2013 5:20:41 PM	7938
Uranium	0.011	0.0010		mg/L	1	6/25/2013 5:20:41 PM	7938
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/18/2013 12:28:56 PM	7959
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Acenaphthylene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Aniline	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Anthracene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Azobenzene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Benz(a)anthracene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Benzo(a)pyrene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Benzo(b)fluoranthene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Benzo(k)fluoranthene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Benzoic acid	ND	20		µg/L	1	6/19/2013 3:33:16 PM	7975
Benzyl alcohol	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Butyl benzyl phthalate	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Carbazole	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2013 2nd QTR

Collection Date: 6/12/2013 2:35:00 PM

Lab ID: 1306595-007

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC	
4-Chloroaniline	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
2-Chloronaphthalene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
2-Chlorophenol	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Chrysene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Di-n-butyl phthalate	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Di-n-octyl phthalate	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Dibenzofuran	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
1,2-Dichlorobenzene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
1,3-Dichlorobenzene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
1,4-Dichlorobenzene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Diethyl phthalate	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Dimethyl phthalate	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
2,4-Dichlorophenol	ND	20		µg/L	1	6/19/2013 3:33:16 PM	7975
2,4-Dimethylphenol	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/19/2013 3:33:16 PM	7975
2,4-Dinitrophenol	ND	20		µg/L	1	6/19/2013 3:33:16 PM	7975
2,4-Dinitrotoluene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
2,6-Dinitrotoluene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Fluoranthene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Fluorene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Hexachlorobenzene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Hexachlorobutadiene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Hexachloroethane	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Isophorone	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
1-Methylnaphthalene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
2-Methylnaphthalene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
2-Methylphenol	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
3+4-Methylphenol	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
N-Nitrosodimethylamine	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Naphthalene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
2-Nitroaniline	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
3-Nitroaniline	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
4-Nitroaniline	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2013 2nd QTR

Collection Date: 6/12/2013 2:35:00 PM

Lab ID: 1306595-007

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC	
Nitrobenzene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
2-Nitrophenol	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
4-Nitrophenol	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Pentachlorophenol	ND	20		µg/L	1	6/19/2013 3:33:16 PM	7975
Phenanthrene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Phenol	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Pyrene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Pyridine	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/19/2013 3:33:16 PM	7975
Surr: 2,4,6-Tribromophenol	73.4	41.5-117		%REC	1	6/19/2013 3:33:16 PM	7975
Surr: 2-Fluorobiphenyl	64.5	29.1-112		%REC	1	6/19/2013 3:33:16 PM	7975
Surr: 2-Fluorophenol	49.8	11.9-98.6		%REC	1	6/19/2013 3:33:16 PM	7975
Surr: 4-Terphenyl-d14	72.8	46-111		%REC	1	6/19/2013 3:33:16 PM	7975
Surr: Nitrobenzene-d5	85.3	34.9-112		%REC	1	6/19/2013 3:33:16 PM	7975
Surr: Phenol-d5	41.1	17.5-88.3		%REC	1	6/19/2013 3:33:16 PM	7975

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 2nd QTR

Collection Date: 6/12/2013 9:00:00 AM

Lab ID: 1306595-008

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Toluene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Ethylbenzene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Naphthalene	ND	2.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Acetone	ND	10		µg/L	1	6/19/2013 5:20:45 AM	R11386
Bromobenzene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Bromoform	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Bromomethane	ND	3.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
2-Butanone	ND	10		µg/L	1	6/19/2013 5:20:45 AM	R11386
Carbon disulfide	ND	10		µg/L	1	6/19/2013 5:20:45 AM	R11386
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Chlorobenzene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Chloroethane	ND	2.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Chloroform	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Chloromethane	ND	3.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Dibromomethane	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 2nd QTR

Collection Date: 6/12/2013 9:00:00 AM

Lab ID: 1306595-008

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
2-Hexanone	ND	10		µg/L	1	6/19/2013 5:20:45 AM	R11386
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2013 5:20:45 AM	R11386
Methylene Chloride	ND	3.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Styrene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Vinyl chloride	ND	1.0		µg/L	1	6/19/2013 5:20:45 AM	R11386
Xylenes, Total	ND	1.5		µg/L	1	6/19/2013 5:20:45 AM	R11386
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	6/19/2013 5:20:45 AM	R11386
Surr: 4-Bromofluorobenzene	93.4	69.5-130		%REC	1	6/19/2013 5:20:45 AM	R11386
Surr: Dibromofluoromethane	109	70-130		%REC	1	6/19/2013 5:20:45 AM	R11386
Surr: Toluene-d8	103	70-130		%REC	1	6/19/2013 5:20:45 AM	R11386

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2013 2nd QTR

Collection Date:

Lab ID: 1306595-009

Matrix: TRIP BLANK

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Benzene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Toluene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Ethylbenzene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Naphthalene	ND	2.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Acetone	ND	10		µg/L	1	6/19/2013 5:49:28 AM	R11386
Bromobenzene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Bromoform	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Bromomethane	ND	3.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
2-Butanone	ND	10		µg/L	1	6/19/2013 5:49:28 AM	R11386
Carbon disulfide	ND	10		µg/L	1	6/19/2013 5:49:28 AM	R11386
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Chlorobenzene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Chloroethane	ND	2.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Chloroform	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Chloromethane	ND	3.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Dibromomethane	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306595

Date Reported: 7/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2013 2nd QTR

Collection Date:

Lab ID: 1306595-009

Matrix: TRIP BLANK

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
2-Hexanone	ND	10		µg/L	1	6/19/2013 5:49:28 AM	R11386
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2013 5:49:28 AM	R11386
Methylene Chloride	ND	3.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Styrene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Vinyl chloride	ND	1.0		µg/L	1	6/19/2013 5:49:28 AM	R11386
Xylenes, Total	ND	1.5		µg/L	1	6/19/2013 5:49:28 AM	R11386
Surr: 1,2-Dichloroethane-d4	97.3	70-130		%REC	1	6/19/2013 5:49:28 AM	R11386
Surr: 4-Bromofluorobenzene	93.3	69.5-130		%REC	1	6/19/2013 5:49:28 AM	R11386
Surr: Dibromofluoromethane	102	70-130		%REC	1	6/19/2013 5:49:28 AM	R11386
Surr: Toluene-d8	98.6	70-130		%REC	1	6/19/2013 5:49:28 AM	R11386

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Anatek Labs, Inc.

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

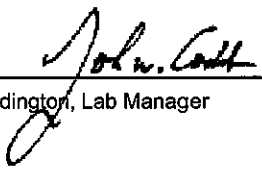
Batch #: 130619003
Project Name: 1306595

Analytical Results Report

Sample Number	130619003-001	Sampling Date	6/12/2013	Date/Time Received	6/18/2013 12:50 PM
Client Sample ID	1306595-003H / OAPIS-1	Sampling Time	11:45 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0689	mg/L	0.01	6/20/2013	CRW	EPA 335.4	

Authorized Signature


John Coddington, Lab Manager

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R11414			RunNo: 11414					
Prep Date:		Analysis Date: 6/19/2013			SeqNo: 322566		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11414		RunNo: 11414					
Prep Date:			Analysis Date: 6/19/2013		SeqNo: 322567		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	100	85	115			
Calcium	52	1.0	50.00	0	104	85	115			
Chromium	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.52	0.020	0.5000	0	104	85	115			
Magnesium	52	1.0	50.00	0	105	85	115			
Manganese	0.52	0.0020	0.5000	0	105	85	115			
Potassium	52	1.0	50.00	0	104	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R11414			RunNo: 11414					
Prep Date:		Analysis Date: 6/19/2013			SeqNo: 322584		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Sodium	ND	1.0								
Zinc	ND	0.010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID LCS	SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: LCSW	Batch ID: R11414		RunNo: 11414							
Prep Date:	Analysis Date: 6/19/2013		SeqNo: 322585		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			
Calcium	51	1.0	50.00	0	102	85	115			
Chromium	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Magnesium	51	1.0	50.00	0	102	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Potassium	50	1.0	50.00	0	100	85	115			
Sodium	50	1.0	50.00	0	100	85	115			
Zinc	0.49	0.010	0.5000	0	97.9	85	115			

Sample ID 1306515-001CMS	SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11414		RunNo: 11414							
Prep Date:	Analysis Date: 6/19/2013		SeqNo: 322880		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.60	0.020	0.5000	0.07383	106	70	130			
Magnesium	59	1.0	50.00	8.228	102	70	130			
Manganese	0.53	0.0020	0.5000	0.0009200	106	70	130			

Sample ID 1306515-001CMSD	SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11414		RunNo: 11414							
Prep Date:	Analysis Date: 6/19/2013		SeqNo: 322881		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.59	0.020	0.5000	0.07383	103	70	130	2.33	20	
Magnesium	59	1.0	50.00	8.228	101	70	130	1.18	20	
Manganese	0.53	0.0020	0.5000	0.0009200	105	70	130	1.11	20	

Sample ID 1306515-001CMS	SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11414		RunNo: 11414							
Prep Date:	Analysis Date: 6/19/2013		SeqNo: 322883		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	310	5.0	250.0	48.29	106	70	130			

Sample ID 1306515-001CMSD	SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11414		RunNo: 11414							
Prep Date:	Analysis Date: 6/19/2013		SeqNo: 322884		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	310	5.0	250.0	48.29	105	70	130	0.678	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID MB	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PBW	Batch ID: R11531		RunNo: 11531							
Prep Date:	Analysis Date: 6/24/2013		SeqNo: 326455		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: LCSW	Batch ID: R11531		RunNo: 11531							
Prep Date:	Analysis Date: 6/24/2013		SeqNo: 326456		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.49	0.0020	0.5000	0	98.6	85	115			
Copper	0.48	0.0060	0.5000	0	97.0	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Manganese	0.51	0.0020	0.5000	0	103	85	115			
Silver	0.098	0.0050	0.1000	0	98.0	85	115			

Sample ID 1306587-008AMS	SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11531		RunNo: 11531							
Prep Date:	Analysis Date: 6/24/2013		SeqNo: 326504		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.58	0.0020	0.5000	0	116	70	130			
Copper	0.52	0.0060	0.5000	0	105	70	130			
Iron	0.56	0.020	0.5000	0	112	70	130			
Manganese	0.54	0.0020	0.5000	0.005530	108	70	130			

Sample ID 1306587-008AMSD	SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11531		RunNo: 11531							
Prep Date:	Analysis Date: 6/24/2013		SeqNo: 326505		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.57	0.0020	0.5000	0	114	70	130	1.73	20	
Copper	0.52	0.0060	0.5000	0	104	70	130	0.958	20	
Iron	0.57	0.020	0.5000	0	113	70	130	0.553	20	
Manganese	0.54	0.0020	0.5000	0.005530	107	70	130	0.850	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	1306587-008AMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11531		RunNo: 11531					
Prep Date:			Analysis Date: 6/24/2013		SeqNo: 326507		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.54	0.025	0.5000	0.01200	105	70	130			

Sample ID	1306587-008AMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11531		RunNo: 11531					
Prep Date:			Analysis Date: 6/24/2013		SeqNo: 326508		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.53	0.025	0.5000	0.01200	104	70	130	0.946	20	

Sample ID	1306587-008AMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11552		RunNo: 11552					
Prep Date:			Analysis Date: 6/25/2013		SeqNo: 327314		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	77	1.0	50.00	28.32	98.3	70	130			

Sample ID	1306587-008AMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11552		RunNo: 11552					
Prep Date:			Analysis Date: 6/25/2013		SeqNo: 327315		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	77	1.0	50.00	28.32	97.6	70	130	0.423	20	

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R11552			RunNo: 11552					
Prep Date:		Analysis Date: 6/25/2013			SeqNo: 327346		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11552		RunNo: 11552					
Prep Date:			Analysis Date: 6/25/2013		SeqNo: 327347		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	49	1.0	50.00	0	98.2	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	MB-7938		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 7938		RunNo: 11609					
Prep Date:	6/17/2013		Analysis Date: 6/27/2013		SeqNo: 329181		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-7938		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 7938		RunNo: 11609					
Prep Date:	6/17/2013		Analysis Date: 6/27/2013		SeqNo: 329182		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0	104	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Chromium	0.54	0.0060	0.5000	0	107	85	115			
Copper	0.53	0.0060	0.5000	0	105	85	115			
Iron	0.54	0.020	0.5000	0	108	85	115			
Manganese	0.53	0.0020	0.5000	0	105	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.50	0.010	0.5000	0	99.9	85	115			

Sample ID	1306597-005CMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 7938		RunNo: 11609					
Prep Date:	6/17/2013		Analysis Date: 6/27/2013		SeqNo: 329303		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.58	0.0020	0.5000	0.01928	111	70	130			
Chromium	0.51	0.0060	0.5000	0	103	70	130			
Iron	0.54	0.020	0.5000	0	109	70	130			
Manganese	0.58	0.0020	0.5000	0.01957	111	70	130			
Zinc	0.50	0.010	0.5000	0	99.7	70	130			

Sample ID	1306597-005CMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 7938		RunNo: 11609					
Prep Date:	6/17/2013		Analysis Date: 6/27/2013		SeqNo: 329304		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.57	0.0020	0.5000	0.01928	111	70	130	0.214	20	
Chromium	0.52	0.0060	0.5000	0	103	70	130	0.153	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	1306597-005CMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 7938		RunNo: 11609					
Prep Date:	6/17/2013		Analysis Date: 6/27/2013		SeqNo: 329304		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.54	0.020	0.5000	0	108	70	130	0.510	20	
Manganese	0.57	0.0020	0.5000	0.01957	111	70	130	0.0765	20	
Zinc	0.50	0.010	0.5000	0	99.2	70	130	0.497	20	

Sample ID	1306597-005CMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 7938		RunNo: 11655					
Prep Date:	6/17/2013		Analysis Date: 6/28/2013		SeqNo: 330573		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.49	0.0020	0.5000	0	98.9	70	130			
Copper	0.52	0.0060	0.5000	0	104	70	130			
Silver	0.10	0.0050	0.1000	0.0008200	100	70	130			

Sample ID	1306597-005CMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 7938		RunNo: 11655					
Prep Date:	6/17/2013		Analysis Date: 6/28/2013		SeqNo: 330574		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	99.4	70	130	0.446	20	
Copper	0.52	0.0060	0.5000	0	104	70	130	0.0595	20	
Silver	0.10	0.0050	0.1000	0.0008200	100	70	130	0.00991	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 328123		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	98.0	85	115			
Lead	0.025	0.0010	0.02500	0	99.7	85	115			
Selenium	0.024	0.0010	0.02500	0	97.4	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 328124		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.7	85	115			
Lead	0.026	0.0010	0.02500	0	103	85	115			
Selenium	0.025	0.0010	0.02500	0	99.6	85	115			

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 328125		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 328126		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	1306586-002AMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 329350		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0.0003280	105	70	130			
Lead	0.026	0.0010	0.02500	.00002579	103	70	130			
Selenium	0.030	0.0010	0.02500	0.001294	114	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	1306587-006AMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 329354		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.003941	82.1	70	130			
Lead	0.027	0.0010	0.02500	0.0007356	106	70	130			

Sample ID	1306587-006AMSD		SampType: MSD		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 329355		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.003941	80.7	70	130	1.41	20	
Lead	0.027	0.0010	0.02500	0.0007356	106	70	130	0.502	20	

Sample ID	1306597-001EMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 329369		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0010	0.02500	0.002526	106	70	130			
Lead	0.027	0.0010	0.02500	0.0001562	106	70	130			
Selenium	0.044	0.0010	0.02500	0.01861	100	70	130			

Sample ID	1306597-001EMSD		SampType: MSD		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 329370		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0010	0.02500	0.002526	105	70	130	1.55	20	
Lead	0.026	0.0010	0.02500	0.0001562	105	70	130	1.09	20	
Selenium	0.042	0.0010	0.02500	0.01861	95.3	70	130	2.71	20	

Sample ID	1306710-004AMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 329377		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0.003581	92.3	70	130			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 329379		Units: mg/L			
Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R11577			RunNo: 11577						
Prep Date:	Analysis Date: 6/26/2013			SeqNo: 329379		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.9	85	115			
Lead	0.025	0.0010	0.02500	0	99.5	85	115			
Selenium	0.024	0.0010	0.02500	0	96.2	85	115			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R11577			RunNo: 11577						
Prep Date:	Analysis Date: 6/26/2013			SeqNo: 329380		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID 1306587-006AMS	SampType: MS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: R11643			RunNo: 11643						
Prep Date:	Analysis Date: 6/28/2013			SeqNo: 330368		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.20	0.0050	0.1250	0.06025	115	70	130			
Uranium	0.24	0.0050	0.1250	0.1024	109	70	130			

Sample ID 1306587-006AMSD	SampType: MSD			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: R11643			RunNo: 11643						
Prep Date:	Analysis Date: 6/28/2013			SeqNo: 330369		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.21	0.0050	0.1250	0.06025	119	70	130	2.16	20	
Uranium	0.24	0.0050	0.1250	0.1024	112	70	130	1.68	20	

Sample ID 1306597-001EMS	SampType: MS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: R11643			RunNo: 11643						
Prep Date:	Analysis Date: 6/28/2013			SeqNo: 330379		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.19	0.0050	0.1250	0.07583	94.1	70	130			

Sample ID 1306597-001EMSD	SampType: MSD			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: R11643			RunNo: 11643						
Prep Date:	Analysis Date: 6/28/2013			SeqNo: 330380		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	1306597-001EMSD			SampType:	MSD			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	R11643			RunNo:	11643		
Prep Date:				Analysis Date:	6/28/2013			SeqNo:	330380		
						Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.20	0.0050	0.1250	0.07583	102	70	130	5.23	20		

Sample ID	1306710-004AMS			SampType:	MS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	R11643			RunNo:	11643		
Prep Date:				Analysis Date:	6/28/2013			SeqNo:	330389		
						Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Selenium	0.17	0.0050	0.1250	0.03622	105	70	130				

Sample ID	LCS			SampType:	LCS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	LCSW			Batch ID:	R11643			RunNo:	11643		
Prep Date:				Analysis Date:	6/28/2013			SeqNo:	330391		
						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	101	85	115				
Uranium	0.026	0.0010	0.02500	0	103	85	115				

Sample ID	LCS			SampType:	LCS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	LCSW			Batch ID:	R11643			RunNo:	11643		
Prep Date:				Analysis Date:	6/28/2013			SeqNo:	330392		
						Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.025	0.0010	0.02500	0	100	85	115				
Selenium	0.025	0.0010	0.02500	0	100	85	115				
Uranium	0.026	0.0010	0.02500	0	103	85	115				

Sample ID	MB			SampType:	MBLK			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	PBW			Batch ID:	R11643			RunNo:	11643		
Prep Date:				Analysis Date:	6/28/2013			SeqNo:	330393		
						Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	ND	0.0010									
Selenium	ND	0.0010									
Uranium	ND	0.0010									

Sample ID	MB			SampType:	MBLK			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	PBW			Batch ID:	R11643			RunNo:	11643		
Prep Date:				Analysis Date:	6/28/2013			SeqNo:	330394		
						Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R11643	RunNo:	11643					
Prep Date:		Analysis Date:	6/28/2013	SeqNo:	330394	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	1306569-002ALLMS			SampType:	MSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	BatchQC			Batch ID:	7938			RunNo:	11537		
Prep Date:	6/17/2013			Analysis Date:	6/25/2013			SeqNo:	327664		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.039	0.0010	0.02500	0.01305	104	70	130				

Sample ID	1306569-006ALLMS			SampType:	MSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	BatchQC			Batch ID:	7938			RunNo:	11537		
Prep Date:	6/17/2013			Analysis Date:	6/25/2013			SeqNo:	327669		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.040	0.0010	0.02500	0.01391	104	70	130				

Sample ID	1306569-006ALLMS			SampType:	MSDLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	BatchQC			Batch ID:	7938			RunNo:	11537		
Prep Date:	6/17/2013			Analysis Date:	6/25/2013			SeqNo:	327670		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.040	0.0010	0.02500	0.01391	105	70	130	0.904	20		

Sample ID	LL LCS-7938			SampType:	LCSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	BatchQC			Batch ID:	7938			RunNo:	11537		
Prep Date:	6/17/2013			Analysis Date:	6/25/2013			SeqNo:	327702		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.026	0.0010	0.02500	0	103	85	115				
Lead	0.025	0.0010	0.02500	0	101	85	115				
Selenium	0.025	0.0010	0.02500	0	98.9	85	115				
Uranium	0.026	0.0010	0.02500	0	105	85	115				

Sample ID	MB-7938			SampType:	MBLK			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	PBW			Batch ID:	7938			RunNo:	11537		
Prep Date:	6/17/2013			Analysis Date:	6/25/2013			SeqNo:	327706		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	ND	0.0010									
Lead	ND	0.0010									
Selenium	ND	0.0010									
Uranium	ND	0.0010									

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	MB-7959		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 7959		RunNo: 11368					
Prep Date:	6/17/2013		Analysis Date: 6/18/2013		SeqNo: 321240		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-7959		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 7959		RunNo: 11368					
Prep Date:	6/17/2013		Analysis Date: 6/18/2013		SeqNo: 321243		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.2	80	120			

Sample ID	1306597-001FMS		SampType: MS		TestCode: EPA Method 245.1: Mercury					
Client ID:	BatchQC		Batch ID: 7959		RunNo: 11368					
Prep Date:	6/17/2013		Analysis Date: 6/18/2013		SeqNo: 321268		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	95.4	75	125			

Sample ID	1306597-001FMSD			SampType:	MSD		TestCode:	EPA Method 245.1: Mercury			
Client ID:	BatchQC			Batch ID:	7959		RunNo:	11368			
Prep Date:	6/17/2013			Analysis Date:	6/18/2013		SeqNo:	321269		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0047	0.00020	0.005000	0	93.7	75	125	1.88	20		

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R11342		RunNo: 11342							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320455		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R11342		RunNo: 11342							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320456		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	93.1	90	110			
Chloride	4.7	0.50	5.000	0	93.3	90	110			
Bromide	2.4	0.10	2.500	0	95.7	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.9	90	110			
Sulfate	9.4	0.50	10.00	0	94.4	90	110			

Sample ID 1306604-003DMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R11342		RunNo: 11342							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320460		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	95.1	76.9	114			
Chloride	4.7	0.50	5.000	0	94.6	89.9	119			
Bromide	2.5	0.10	2.500	0	98.9	92	104			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.9	73.9	120			
Sulfate	9.6	0.50	10.00	0	95.7	90.1	116			

Sample ID 1306604-003DMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R11342		RunNo: 11342							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320461		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	94.4	76.9	114	0.718	20	
Chloride	4.8	0.50	5.000	0	95.5	89.9	119	0.968	20	
Bromide	2.5	0.10	2.500	0	98.7	92	104	0.174	20	
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	101	73.9	120	1.25	20	
Sulfate	9.7	0.50	10.00	0	96.7	90.1	116	1.12	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 P Sample pH greater than 2 for VOA and TOC only.
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R11437	RunNo:	11437					
Prep Date:		Analysis Date:	6/19/2013	SeqNo:	323319	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:	R11437	RunNo:	11437					
Prep Date:		Analysis Date:	6/19/2013	SeqNo:	323320	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0	96.0	90	110			

Sample ID	1306800-001CMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R11437	RunNo:	11437					
Prep Date:		Analysis Date:	6/19/2013	SeqNo:	323336	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.7	0.20	3.500	0.3075	97.9	90	110			

Sample ID	1306800-001CMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R11437	RunNo:	11437					
Prep Date:		Analysis Date:	6/19/2013	SeqNo:	323337	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.8	0.20	3.500	0.3075	98.8	90	110	0.867	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	MB-7930		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 7930		RunNo: 11305					
Prep Date:	6/14/2013		Analysis Date: 6/14/2013		SeqNo: 319910		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		105	75.4	146			

Sample ID	LCS-7930		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 7930		RunNo: 11305					
Prep Date:	6/14/2013		Analysis Date: 6/14/2013		SeqNo: 319911		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.9	1.0	5.000	0	98.2	89.1	151			
Surr: DNOP	0.51		0.5000		103	75.4	146			

Sample ID	LCSD-7930		SampType: LCSD		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSS02		Batch ID: 7930		RunNo: 11305					
Prep Date:	6/14/2013		Analysis Date: 6/14/2013		SeqNo: 319912		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	100	89.1	151	2.11	20	
Surr: DNOP	0.55		0.5000		110	75.4	146	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID 5ML RB	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: R11360		RunNo: 11360							
Prep Date:	Analysis Date: 6/17/2013		SeqNo: 320888		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		90.2	51.5	151			

Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: R11360		RunNo: 11360							
Prep Date:	Analysis Date: 6/17/2013		SeqNo: 320889		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.53	0.050	0.5000	0	106	73.2	124			
Surr: BFB	19		20.00		96.0	51.5	151			

Sample ID 1306401-001BMS	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: BatchQC	Batch ID: R11360		RunNo: 11360							
Prep Date:	Analysis Date: 6/17/2013		SeqNo: 320905		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	112	65.2	137			
Surr: BFB	19		20.00		97.4	51.5	151			

Sample ID 1306401-001BMSD	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: BatchQC	Batch ID: R11360		RunNo: 11360							
Prep Date:	Analysis Date: 6/17/2013		SeqNo: 320906		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.54	0.050	0.5000	0	108	65.2	137	3.74	20	
Surr: BFB	20		20.00		98.2	51.5	151	0	0	

Sample ID 5ML RB	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: R11387		RunNo: 11387							
Prep Date:	Analysis Date: 6/18/2013		SeqNo: 321875		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		90.1	51.5	151			

Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: R11387		RunNo: 11387							
Prep Date:	Analysis Date: 6/18/2013		SeqNo: 321876		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.49	0.050	0.5000	0	98.1	73.2	124			

Qualifiers:

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

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 P Sample pH greater than 2 for VOA and TOC only.
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: R11387		RunNo: 11387					
Prep Date:			Analysis Date: 6/18/2013		SeqNo: 321876		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	20		20.00		97.8	51.5	151			

Sample ID	1306595-006AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	NAPIS-3		Batch ID: R11387		RunNo: 11387					
Prep Date:			Analysis Date: 6/18/2013		SeqNo: 321884		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	100	65.2	137			
Surr: BFB	20		20.00		99.0	51.5	151			

Sample ID	1306595-006AMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	NAPIS-3		Batch ID: R11387		RunNo: 11387					
Prep Date:			Analysis Date: 6/18/2013		SeqNo: 321885		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	95.7	65.2	137	4.85	20	
Surr: BFB	20		20.00		97.7	51.5	151	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID: R11360			RunNo: 11360					
Prep Date:		Analysis Date: 6/17/2013			SeqNo: 320936		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	21		20.00		104	69.4	129			

Sample ID	100NG BTEX LCS		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSW		Batch ID: R11360		RunNo: 11360					
Prep Date:			Analysis Date: 6/17/2013		SeqNo: 320937		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	21	2.5	20.00	0	105	76.9	115			
Benzene	19	1.0	20.00	0	97.4	80	120			
Toluene	20	1.0	20.00	0	99.1	80	120			
Ethylbenzene	20	1.0	20.00	0	98.7	80	120			
Xylenes, Total	63	2.0	60.00	0	105	80	120			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	103	80	120			
1,3,5-Trimethylbenzene	21	1.0	20.00	0	105	80	120			
Surr: 4-Bromofluorobenzene	21		20.00		105	69.4	129			

Sample ID	1306502-003AMS		SampType: MS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	BatchQC		Batch ID: R11360		RunNo: 11360					
Prep Date:			Analysis Date: 6/17/2013		SeqNo: 320947		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0	95.5	65.6	125			
Benzene	19	1.0	20.00	0.3440	91.2	80	120			
Toluene	19	1.0	20.00	0.3780	91.2	80	120			
Ethylbenzene	19	1.0	20.00	0.4360	92.1	80	120			
Xylenes, Total	60	2.0	60.00	1.012	97.8	80	120			
1,2,4-Trimethylbenzene	20	1.0	20.00	0.3780	95.8	74	128			
1,3,5-Trimethylbenzene	20	1.0	20.00	0.2980	99.2	75.5	130			
Surr: 4-Bromofluorobenzene	20		20.00		102	69.4	129			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	1306502-003AMSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles					
Client ID:	BatchQC		Batch ID: R11360		RunNo: 11360					
Prep Date:			Analysis Date: 6/17/2013		SeqNo: 320948		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0	95.8	65.6	125	0.303	20	
Benzene	18	1.0	20.00	0.3440	90.8	80	120	0.432	20	
Toluene	19	1.0	20.00	0.3780	91.0	80	120	0.237	20	
Ethylbenzene	19	1.0	20.00	0.4360	92.1	80	120	0.0318	20	
Xylenes, Total	59	2.0	60.00	1.012	96.3	80	120	1.55	20	
1,2,4-Trimethylbenzene	19	1.0	20.00	0.3780	94.8	74	128	0.936	20	
1,3,5-Trimethylbenzene	20	1.0	20.00	0.2980	97.3	75.5	130	1.94	20	
Surr: 4-Bromofluorobenzene	21		20.00		103	69.4	129	0	0	

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID: R11387			RunNo: 11387					
Prep Date:		Analysis Date: 6/18/2013			SeqNo: 321967		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	21		20.00		105	69.4	129			

Sample ID	100NG BTEX LCS		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSW		Batch ID: R11387		RunNo: 11387					
Prep Date:			Analysis Date: 6/18/2013		SeqNo: 321968		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	22	2.5	20.00	0	110	76.8	124			
Benzene	21	1.0	20.00	0	107	80	120			
Toluene	21	1.0	20.00	0	107	80	120			
Ethylbenzene	21	1.0	20.00	0	106	80	120			
Xylenes, Total	65	2.0	60.00	0	109	80	120			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	105	80	120			
1,3,5-Trimethylbenzene	22	1.0	20.00	0	110	80	120			
Surr: 4-Bromofluorobenzene	22		20.00		111	69.4	129			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	1306595-007AMS		SampType: MS			TestCode: EPA Method 8021B: Volatiles				
Client ID:	NAPIS-1		Batch ID: R11387			RunNo: 11387				
Prep Date:			Analysis Date: 6/18/2013			SeqNo: 321975		Units: µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	22	2.5	20.00	0	108	65.6	125			
Benzene	21	1.0	20.00	0	103	80	120			
Toluene	20	1.0	20.00	0.4460	100	80	120			
Ethylbenzene	21	1.0	20.00	0.3560	103	80	120			
Xylenes, Total	64	2.0	60.00	0.6160	106	80	120			
1,2,4-Trimethylbenzene	21	1.0	20.00	0.2840	102	74	128			
1,3,5-Trimethylbenzene	21	1.0	20.00	0.2240	106	75.5	130			
Surr: 4-Bromofluorobenzene	22		20.00		109	69.4	129			

Sample ID	1306595-007AMSD		SampType: MSD			TestCode: EPA Method 8021B: Volatiles				
Client ID:	NAPIS-1		Batch ID: R11387			RunNo: 11387				
Prep Date:			Analysis Date: 6/18/2013			SeqNo: 321976		Units: µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	22	2.5	20.00	0	111	65.6	125	2.50	20	
Benzene	21	1.0	20.00	0	103	80	120	0.718	20	
Toluene	20	1.0	20.00	0.4460	100	80	120	0.0880	20	
Ethylbenzene	21	1.0	20.00	0.3560	102	80	120	0.595	20	
Xylenes, Total	64	2.0	60.00	0.6160	105	80	120	0.800	20	
1,2,4-Trimethylbenzene	21	1.0	20.00	0.2840	102	74	128	0.0777	20	
1,3,5-Trimethylbenzene	21	1.0	20.00	0.2240	106	75.5	130	0.719	20	
Surr: 4-Bromofluorobenzene	22		20.00		108	69.4	129	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R11386	RunNo:	11386					
Prep Date:		Analysis Date:	6/18/2013	SeqNo:	321868	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								
1,1-Dichloropropene	ND	1.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R11386			RunNo: 11386					
Prep Date:		Analysis Date: 6/18/2013			SeqNo: 321868		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	69.5	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	9.6		10.00		96.2	70	130			

Sample ID	100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES						
Client ID:	LCSW	Batch ID: R11386		RunNo: 11386						
Prep Date:		Analysis Date: 6/18/2013		SeqNo: 321870		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	114	70	130			
Toluene	23	1.0	20.00	0	113	80	120			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	110	85.8	133			
Trichloroethene (TCE)	22	1.0	20.00	0	109	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R11386			RunNo: 11386					
Prep Date:		Analysis Date: 6/18/2013			SeqNo: 321870		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.1	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.5	69.5	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	1306461-005a ms	SampType: MS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID: R11386			RunNo: 11386					
Prep Date:		Analysis Date: 6/18/2013			SeqNo: 321879		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130			
Toluene	22	1.0	20.00	0	111	68.5	128			
Chlorobenzene	20	1.0	20.00	0	99.5	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	117	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0.5508	100	61.3	102			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	69.5	130			
Surr: Dibromofluoromethane	9.7		10.00		96.6	70	130			
Surr: Toluene-d8	9.9		10.00		98.6	70	130			

Sample ID	1306461-005a msd	SampType:	MSD		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R11386		RunNo: 11386					
Prep Date:		Analysis Date:	6/18/2013		SeqNo: 321881		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	106	70	130	31.1	20	R
Toluene	22	1.0	20.00	0	108	68.5	128	34.4	20	R
Chlorobenzene	18	1.0	20.00	0	92.2	70	130	23.9	20	R
1,1-Dichloroethene	20	1.0	20.00	0	97.9	70	130	42.3	20	R
Trichloroethene (TCE)	20	1.0	20.00	0.5508	97.2	61.3	102	27.2	20	R
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.8		10.00		97.9	69.5	130	0	0	
Surr: Dibromofluoromethane	9.6		10.00		96.5	70	130	0	0	
Surr: Toluene-d8	10		10.00		104	70	130	0	0	

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R11424			RunNo: 11424					
Prep Date:		Analysis Date: 6/19/2013			SeqNo: 322997		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R11424	RunNo:	11424					
Prep Date:		Analysis Date:	6/19/2013	SeqNo:	322997	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R11424			RunNo: 11424					
Prep Date:		Analysis Date: 6/19/2013			SeqNo: 322997		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.8	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.0	69.5	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.8		10.00		98.1	70	130			

Sample ID	100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES						
Client ID:	LCSW	Batch ID: R11424		RunNo: 11424						
Prep Date:	Analysis Date: 6/19/2013		SeqNo: 322999		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	111	70	130			
Toluene	23	1.0	20.00	0	113	80	120			
Chlorobenzene	21	1.0	20.00	0	105	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	105	85.8	133			
Trichloroethene (TCE)	22	1.0	20.00	0	109	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.1	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	100ng lcs		SampType:	LCS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	LCSW		Batch ID:	R11424		RunNo:	11424			
Prep Date:			Analysis Date:	6/19/2013		SeqNo:	322999	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	9.3		10.00		93.3	69.5	130			
Surr: Dibromofluoromethane	9.8		10.00		98.0	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID	1306597-005a ms		SampType:	MS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	BatchQC		Batch ID:	R11424		RunNo:	11424			
Prep Date:			Analysis Date:	6/19/2013		SeqNo:	323008	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	115	70	130			
Toluene	23	1.0	20.00	0	116	68.5	128			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	105	70	130			
Trichloroethene (TCE)	23	1.0	20.00	0	113	61.3	102			S
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.4	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		94.6	69.5	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Sample ID	1306597-005a msd		SampType:	MSD		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	BatchQC		Batch ID:	R11424		RunNo:	11424			
Prep Date:			Analysis Date:	6/19/2013		SeqNo:	323009	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130	4.04	20	
Toluene	22	1.0	20.00	0	112	68.5	128	3.67	20	
Chlorobenzene	21	1.0	20.00	0	104	70	130	0.649	20	
1,1-Dichloroethene	20	1.0	20.00	0	100	70	130	4.47	20	
Trichloroethene (TCE)	20	1.0	20.00	0	101	61.3	102	11.5	20	
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.1		10.00		90.8	69.5	130	0	0	
Surr: Dibromofluoromethane	9.4		10.00		94.3	70	130	0	0	
Surr: Toluene-d8	10		10.00		102	70	130	0	0	

Sample ID	rb2		SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	PBW		Batch ID:	R11424		RunNo:	11424			
Prep Date:			Analysis Date:	6/19/2013		SeqNo:	325247	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	rb2	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R11424	RunNo:	11424					
Prep Date:		Analysis Date:	6/19/2013	SeqNo:	325247	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID rb2	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES					
Client ID: PBW	Batch ID: R11424				RunNo: 11424					
Prep Date:	Analysis Date: 6/19/2013				SeqNo: 325247	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.0	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.1	69.5	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID 100ng lcs ii	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES					
Client ID: LCSW	Batch ID: R11424				RunNo: 11424					
Prep Date:	Analysis Date: 6/19/2013				SeqNo: 325258	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	115	70	130			
Toluene	23	1.0	20.00	0	114	80	120			
Chlorobenzene	21	1.0	20.00	0	105	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	107	85.8	133			
Trichloroethene (TCE)	22	1.0	20.00	0	112	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.8	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.0	69.5	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	100ng lcs ii	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R11424	RunNo:	11424					
Prep Date:		Analysis Date:	6/19/2013	SeqNo:	325258	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	mb-7975		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 7975		RunNo: 11385					
Prep Date:	6/18/2013		Analysis Date: 6/19/2013		SeqNo: 321815		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								
2,4-Dinitrotoluene	ND	10								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	mb-7975	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	7975	RunNo:	11385					
Prep Date:	6/18/2013	Analysis Date:	6/19/2013	SeqNo:	321815	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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: 2,4,6-Tribromophenol	150		200.0		75.3	41.5	117			
Surr: 2-Fluorobiphenyl	68		100.0		67.7	29.1	112			
Surr: 2-Fluorophenol	120		200.0		60.6	11.9	98.6			
Surr: 4-Terphenyl-d14	68		100.0		68.3	46	111			
Surr: Nitrobenzene-d5	77		100.0		77.4	34.9	112			
Surr: Phenol-d5	97		200.0		48.6	17.5	88.3			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	Ics-7975		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 7975		RunNo: 11385					
Prep Date:	6/18/2013		Analysis Date: 6/19/2013		SeqNo: 321820		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	73	10	100.0	0	73.4	53.3	92.5			
4-Chloro-3-methylphenol	150	10	200.0	0	76.4	55.9	93.9			
2-Chlorophenol	130	10	200.0	0	62.7	51.1	85.8			
1,4-Dichlorobenzene	59	10	100.0	0	59.1	41.5	86.7			
2,4-Dinitrotoluene	100	10	100.0	0	102	57.5	102			
N-Nitrosodi-n-propylamine	80	10	100.0	0	80.2	52.1	99.7			
4-Nitrophenol	56	10	200.0	0	27.8	27.2	53			
Pentachlorophenol	87	20	200.0	0	43.3	33.7	77.7			
Phenol	76	10	200.0	0	38.1	23.3	66.3			
Pyrene	75	10	100.0	0	75.1	57	88.7			
1,2,4-Trichlorobenzene	65	10	100.0	0	65.2	46.7	87.8			
Surr: 2,4,6-Tribromophenol	140		200.0		67.6	41.5	117			
Surr: 2-Fluorobiphenyl	71		100.0		71.2	29.1	112			
Surr: 2-Fluorophenol	99		200.0		49.5	11.9	98.6			
Surr: 4-Terphenyl-d14	73		100.0		73.4	46	111			
Surr: Nitrobenzene-d5	90		100.0		89.7	34.9	112			
Surr: Phenol-d5	90		200.0		45.2	17.5	88.3			

Sample ID	1306595-005Dms		SampType: MS		TestCode: EPA Method 8270C: Semivolatiles						
Client ID:	KA-3		Batch ID: 7975		RunNo: 11385						
Prep Date:	6/18/2013		Analysis Date: 6/19/2013		SeqNo: 322147		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Acenaphthene	73	10	100.0	0	73.4	70	130				
4-Chloro-3-methylphenol	140	10	200.0	0	69.7	70	130			S	
2-Chlorophenol	130	10	200.0	0	66.7	70	130			S	
1,4-Dichlorobenzene	56	10	100.0	0	55.8	70	130			S	
2,4-Dinitrotoluene	100	10	100.0	0	101	70	130				
N-Nitrosodi-n-propylamine	75	10	100.0	0	74.6	70	130				
4-Nitrophenol	70	10	200.0	0	35.2	70	130			S	
Pentachlorophenol	120	20	200.0	1.920	60.2	70	130			S	
Phenol	65	10	200.0	0	32.6	70	130			S	
Pyrene	71	10	100.0	0	71.1	70	130				
1,2,4-Trichlorobenzene	61	10	100.0	0	60.7	70	130			S	
Surr: 2,4,6-Tribromophenol	160		200.0		80.5	41.5	117				
Surr: 2-Fluorobiphenyl	69		100.0		69.4	29.1	112				
Surr: 2-Fluorophenol	95		200.0		47.7	11.9	98.6				
Surr: 4-Terphenyl-d14	63		100.0		62.8	46	111				
Surr: Nitrobenzene-d5	78		100.0		78.4	34.9	112				
Surr: Phenol-d5	83		200.0		41.4	17.5	88.3				

Qualifiers:

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

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 P Sample pH greater than 2 for VOA and TOC only.
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306595

08-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	1306595-005Dmsd			SampType:	MSD		TestCode:	EPA Method 8270C: Semivolatiles			
Client ID:	KA-3			Batch ID:	7975		RunNo:	11385			
Prep Date:	6/18/2013			Analysis Date:	6/19/2013		SeqNo:	322148		Units:	µg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Acenaphthene	76	10	100.0	0	76.2	70	130	3.72	20		
4-Chloro-3-methylphenol	180	10	200.0	0	89.9	70	130	25.2	20	R	
2-Chlorophenol	140	10	200.0	0	69.8	70	130	4.57	20	S	
1,4-Dichlorobenzene	60	10	100.0	0	59.8	70	130	6.78	20	S	
2,4-Dinitrotoluene	100	10	100.0	0	105	70	130	3.36	20		
N-Nitrosodi-n-propylamine	80	10	100.0	0	79.9	70	130	6.84	20		
4-Nitrophenol	80	10	200.0	0	40.2	70	130	13.3	20	S	
Pentachlorophenol	130	20	200.0	1.920	63.2	70	130	4.87	20	S	
Phenol	77	10	200.0	0	38.6	70	130	16.8	20	S	
Pyrene	78	10	100.0	0	77.8	70	130	9.03	20		
1,2,4-Trichlorobenzene	69	10	100.0	0	69.0	70	130	12.8	20	S	
Surr: 2,4,6-Tribromophenol	160		200.0		82.2	41.5	117	0	0		
Surr: 2-Fluorobiphenyl	70		100.0		70.1	29.1	112	0	0		
Surr: 2-Fluorophenol	99		200.0		49.7	11.9	98.6	0	0		
Surr: 4-Terphenyl-d14	72		100.0		72.2	46	111	0	0		
Surr: Nitrobenzene-d5	84		100.0		84.0	34.9	112	0	0		
Surr: Phenol-d5	89		200.0		44.7	17.5	88.3	0	0		

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87105
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1306595

RcptNo: 1

Received by/date: AT 06/14/13

Logged By: Lindsay Mangin 6/14/2013 9:47:00 AM

Completed By: Lindsay Mangin 6/14/2013 10:21:46 AM

Reviewed By: [Signature] 06/14/13

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☒ No ☒ NA ☐
SEE SECTION 17 06/14/13
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved bottles checked for pH: 21
(2 or 12 unless noted)
Adjusted? YES
Checked by: [Signature]

Special Handling (if applicable)

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

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

18. Cooler Information: 001F, 002F, 004F - FOR METALS ANALYSIS: ADDED 1ML HNO₃ FOR ACCEPTABLE PH
005F - " " " " : ADDED 0.1ML HNO₃ FOR ACCEPTABLE PH 06/14/13
* HELD IN LOGIN FOR @1215
24 HRS AFTER PRESERVATION.

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.0	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 09, 2013

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 2013 2nd QTR

OrderNo.: 1306597

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 6/14/2013 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 1306597

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2013 2nd QTR

Collection Date: 6/13/2013 8:35:00 AM

Lab ID: 1306597-001

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2013 10:38:10 PM	7930
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2013 10:38:10 PM	7930
Surr: DNOP	135	75.4-146		%REC	1	6/14/2013 10:38:10 PM	7930
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.15	0.050		mg/L	1	6/18/2013 8:33:38 PM	R11387
Surr: BFB	99.5	51.5-151		%REC	1	6/18/2013 8:33:38 PM	R11387
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	ND	1.0		mg/L	10	6/14/2013 2:26:26 PM	R11340
Chloride	2400	100		mg/L	200	6/19/2013 8:10:34 PM	R11437
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	6/14/2013 2:26:26 PM	R11340
Bromide	1.9	1.0		mg/L	10	6/14/2013 2:26:26 PM	R11340
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	6/14/2013 2:26:26 PM	R11340
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	6/14/2013 2:26:26 PM	R11340
Sulfate	250	5.0		mg/L	10	6/14/2013 2:26:26 PM	R11340
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.12	0.0020		mg/L	1	7/1/2013 10:58:05 AM	R11681
Cadmium	ND	0.0020		mg/L	1	7/1/2013 10:58:05 AM	R11681
Calcium	250	5.0		mg/L	5	6/27/2013 2:22:32 PM	R11609
Chromium	ND	0.0060		mg/L	1	6/27/2013 2:19:52 PM	R11609
Copper	ND	0.0060		mg/L	1	7/1/2013 10:58:05 AM	R11681
Iron	ND	0.020		mg/L	1	6/27/2013 2:19:52 PM	R11609
Magnesium	37	1.0		mg/L	1	6/27/2013 2:19:52 PM	R11609
Manganese	0.14	0.0020	*	mg/L	1	6/27/2013 2:19:52 PM	R11609
Potassium	2.6	1.0		mg/L	1	6/27/2013 2:19:52 PM	R11609
Silver	0.012	0.0050		mg/L	1	7/1/2013 10:58:05 AM	R11681
Sodium	1000	20		mg/L	20	7/1/2013 11:00:44 AM	R11681
Zinc	0.018	0.010		mg/L	1	6/27/2013 2:19:52 PM	R11609
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.12	0.0020		mg/L	1	6/27/2013 12:59:52 PM	7938
Cadmium	ND	0.0020		mg/L	1	6/28/2013 12:50:24 PM	7938
Chromium	ND	0.0060		mg/L	1	6/27/2013 12:59:52 PM	7938
Copper	ND	0.0060		mg/L	1	6/28/2013 12:50:24 PM	7938
Iron	ND	0.020		mg/L	1	6/27/2013 12:59:52 PM	7938
Manganese	0.14	0.0020	*	mg/L	1	6/27/2013 12:59:52 PM	7938
Silver	0.015	0.0050		mg/L	1	6/28/2013 12:50:24 PM	7938
Zinc	ND	0.010		mg/L	1	6/27/2013 12:59:52 PM	7938
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0025	0.0010		mg/L	1	6/26/2013 5:18:10 PM	R11577

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306597

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2013 2nd QTR

Collection Date: 6/13/2013 8:35:00 AM

Lab ID: 1306597-001

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0010		mg/L	1	6/26/2013 5:18:10 PM	R11577
Selenium	0.019	0.0010		mg/L	1	6/26/2013 5:18:10 PM	R11577
Uranium	0.076	0.0050	*	mg/L	5	6/28/2013 1:56:27 PM	R11643
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	6/27/2013 1:43:07 PM	7938
Selenium	0.017	0.0050		mg/L	5	6/27/2013 1:43:07 PM	7938
Uranium	0.076	0.0050	*	mg/L	5	6/27/2013 1:43:07 PM	7938
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/18/2013 12:34:25 PM	7959
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Toluene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Ethylbenzene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Methyl tert-butyl ether (MTBE)	220	10		µg/L	10	6/19/2013 2:41:28 PM	R11424
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1,2-Dichloroethane (EDC)	1.0	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Naphthalene	ND	2.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Acetone	ND	10		µg/L	1	6/19/2013 6:18:04 AM	R11386
Bromobenzene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Bromoform	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Bromomethane	ND	3.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
2-Butanone	ND	10		µg/L	1	6/19/2013 6:18:04 AM	R11386
Carbon disulfide	ND	10		µg/L	1	6/19/2013 6:18:04 AM	R11386
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Chlorobenzene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Chloroethane	ND	2.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Chloroform	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Chloromethane	ND	3.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306597

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2013 2nd QTR

Collection Date: 6/13/2013 8:35:00 AM

Lab ID: 1306597-001

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Dibromomethane	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1,1-Dichloroethane	1.6	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1,1-Dichloroethene	1.9	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
2-Hexanone	ND	10		µg/L	1	6/19/2013 6:18:04 AM	R11386
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2013 6:18:04 AM	R11386
Methylene Chloride	ND	3.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Styrene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Vinyl chloride	ND	1.0		µg/L	1	6/19/2013 6:18:04 AM	R11386
Xylenes, Total	ND	1.5		µg/L	1	6/19/2013 6:18:04 AM	R11386
Surr: 1,2-Dichloroethane-d4	94.2	70-130		%REC	1	6/19/2013 6:18:04 AM	R11386
Surr: 4-Bromofluorobenzene	91.7	69.5-130		%REC	1	6/19/2013 6:18:04 AM	R11386
Surr: Dibromofluoromethane	102	70-130		%REC	1	6/19/2013 6:18:04 AM	R11386
Surr: Toluene-d8	96.0	70-130		%REC	1	6/19/2013 6:18:04 AM	R11386

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306597

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2013 2nd QTR

Collection Date: 6/13/2013 9:35:00 AM

Lab ID: 1306597-002

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2013 10:59:57 PM	7930
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2013 10:59:57 PM	7930
Surr: DNOP	146	75.4-146	S	%REC	1	6/14/2013 10:59:57 PM	7930
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/18/2013 11:05:01 PM	R11387
Surr: BFB	90.6	51.5-151		%REC	1	6/18/2013 11:05:01 PM	R11387
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	ND	1.0		mg/L	10	6/14/2013 2:51:15 PM	R11340
Chloride	61	5.0		mg/L	10	6/14/2013 2:51:15 PM	R11340
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	6/14/2013 2:51:15 PM	R11340
Bromide	ND	1.0		mg/L	10	6/14/2013 2:51:15 PM	R11340
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	6/14/2013 2:51:15 PM	R11340
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	6/14/2013 2:51:15 PM	R11340
Sulfate	180	5.0		mg/L	10	6/14/2013 2:51:15 PM	R11340
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.035	0.0020		mg/L	1	7/1/2013 11:03:11 AM	R11681
Cadmium	ND	0.0020		mg/L	1	7/1/2013 11:03:11 AM	R11681
Calcium	2.4	1.0		mg/L	1	6/27/2013 2:38:34 PM	R11609
Chromium	ND	0.0060		mg/L	1	6/27/2013 2:38:34 PM	R11609
Copper	ND	0.0060		mg/L	1	7/1/2013 11:03:11 AM	R11681
Iron	0.35	0.020	*	mg/L	1	6/27/2013 2:38:34 PM	R11609
Magnesium	ND	1.0		mg/L	1	6/27/2013 2:38:34 PM	R11609
Manganese	0.013	0.0020		mg/L	1	6/27/2013 2:38:34 PM	R11609
Potassium	ND	1.0		mg/L	1	6/27/2013 2:38:34 PM	R11609
Silver	ND	0.0050		mg/L	1	7/1/2013 11:03:11 AM	R11681
Sodium	290	5.0		mg/L	5	6/27/2013 2:40:50 PM	R11609
Zinc	0.25	0.010		mg/L	1	6/27/2013 2:38:34 PM	R11609
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.26	0.0020		mg/L	1	6/27/2013 1:05:14 PM	7938
Cadmium	ND	0.0020		mg/L	1	6/28/2013 12:53:09 PM	7938
Chromium	0.028	0.0060		mg/L	1	6/27/2013 1:05:14 PM	7938
Copper	0.0061	0.0060		mg/L	1	6/28/2013 12:53:09 PM	7938
Iron	19	1.0	*	mg/L	50	6/28/2013 12:55:24 PM	7938
Manganese	0.82	0.0020	*	mg/L	1	6/27/2013 1:05:14 PM	7938
Silver	ND	0.0050		mg/L	1	6/28/2013 12:53:09 PM	7938
Zinc	0.070	0.010		mg/L	1	6/27/2013 1:05:14 PM	7938
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0014	0.0010		mg/L	1	6/26/2013 5:26:08 PM	R11577

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306597

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2013 2nd QTR

Collection Date: 6/13/2013 9:35:00 AM

Lab ID: 1306597-002

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0010		mg/L	1	6/26/2013 5:26:08 PM	R11577
Selenium	0.0049	0.0010		mg/L	1	6/26/2013 5:26:08 PM	R11577
Uranium	0.043	0.0010	*	mg/L	1	6/28/2013 2:09:47 PM	R11643
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0061	0.0010		mg/L	1	6/25/2013 5:31:04 PM	7938
Selenium	0.0042	0.0010		mg/L	1	6/25/2013 5:31:04 PM	7938
Uranium	0.052	0.0050	*	mg/L	5	6/27/2013 1:45:33 PM	7938
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/19/2013 11:00:09 AM	7992
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Toluene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Ethylbenzene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Naphthalene	ND	2.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Acetone	ND	10		µg/L	1	6/19/2013 6:46:52 AM	R11386
Bromobenzene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Bromoform	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Bromomethane	ND	3.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
2-Butanone	ND	10		µg/L	1	6/19/2013 6:46:52 AM	R11386
Carbon disulfide	ND	10		µg/L	1	6/19/2013 6:46:52 AM	R11386
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Chlorobenzene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Chloroethane	ND	2.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Chloroform	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Chloromethane	ND	3.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306597

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2013 2nd QTR

Collection Date: 6/13/2013 9:35:00 AM

Lab ID: 1306597-002

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Dibromomethane	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
2-Hexanone	ND	10		µg/L	1	6/19/2013 6:46:52 AM	R11386
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2013 6:46:52 AM	R11386
Methylene Chloride	ND	3.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Styrene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Vinyl chloride	ND	1.0		µg/L	1	6/19/2013 6:46:52 AM	R11386
Xylenes, Total	ND	1.5		µg/L	1	6/19/2013 6:46:52 AM	R11386
Surr: 1,2-Dichloroethane-d4	96.7	70-130		%REC	1	6/19/2013 6:46:52 AM	R11386
Surr: 4-Bromofluorobenzene	92.2	69.5-130		%REC	1	6/19/2013 6:46:52 AM	R11386
Surr: Dibromofluoromethane	104	70-130		%REC	1	6/19/2013 6:46:52 AM	R11386
Surr: Toluene-d8	96.7	70-130		%REC	1	6/19/2013 6:46:52 AM	R11386

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306597

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2013 2nd QTR

Collection Date: 6/13/2013 10:20:00 AM

Lab ID: 1306597-003

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.060	0.0020		mg/L	1	7/1/2013 11:15:42 AM	R11681
Cadmium	ND	0.0020		mg/L	1	7/1/2013 11:15:42 AM	R11681
Chromium	ND	0.0060		mg/L	1	6/27/2013 2:43:13 PM	R11609
Copper	ND	0.0060		mg/L	1	7/1/2013 11:15:42 AM	R11681
Iron	0.45	0.020	*	mg/L	1	6/27/2013 2:43:13 PM	R11609
Manganese	0.31	0.0020	*	mg/L	1	6/27/2013 2:43:13 PM	R11609
Silver	ND	0.0050		mg/L	1	7/1/2013 11:15:42 AM	R11681
Zinc	0.017	0.010		mg/L	1	6/27/2013 2:43:13 PM	R11609
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.065	0.0020		mg/L	1	6/27/2013 1:09:35 PM	7938
Cadmium	ND	0.0020		mg/L	1	6/28/2013 12:57:46 PM	7938
Chromium	ND	0.0060		mg/L	1	6/27/2013 1:09:35 PM	7938
Copper	ND	0.0060		mg/L	1	6/28/2013 12:57:46 PM	7938
Iron	0.52	0.020	*	mg/L	1	6/27/2013 1:09:35 PM	7938
Manganese	0.32	0.0020	*	mg/L	1	6/27/2013 1:09:35 PM	7938
Silver	ND	0.0050		mg/L	1	6/28/2013 12:57:46 PM	7938
Zinc	ND	0.010		mg/L	1	6/27/2013 1:09:35 PM	7938
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0018	0.0010		mg/L	1	6/26/2013 5:28:47 PM	R11577
Lead	ND	0.0010		mg/L	1	6/26/2013 5:28:47 PM	R11577
Selenium	0.0055	0.0010		mg/L	1	6/26/2013 5:28:47 PM	R11577
Uranium	0.055	0.0050	*	mg/L	5	6/28/2013 2:12:27 PM	R11643
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0013	0.0010		mg/L	1	6/25/2013 5:33:31 PM	7938
Selenium	0.0033	0.0010		mg/L	1	6/25/2013 5:33:31 PM	7938
Uranium	0.056	0.0050	*	mg/L	5	6/27/2013 1:48:00 PM	7938
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/19/2013 11:01:57 AM	7992
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Toluene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Ethylbenzene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Methyl tert-butyl ether (MTBE)	1400	10		µg/L	10	6/19/2013 7:15:44 AM	R11386
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Naphthalene	ND	2.0		µg/L	1	6/19/2013 7:44:25 AM	R11386

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306597

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2013 2nd QTR

Collection Date: 6/13/2013 10:20:00 AM

Lab ID: 1306597-003

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Acetone	ND	10		µg/L	1	6/19/2013 7:44:25 AM	R11386
Bromobenzene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Bromoform	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Bromomethane	ND	3.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
2-Butanone	ND	10		µg/L	1	6/19/2013 7:44:25 AM	R11386
Carbon disulfide	ND	10		µg/L	1	6/19/2013 7:44:25 AM	R11386
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Chlorobenzene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Chloroethane	ND	2.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Chloroform	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Chloromethane	ND	3.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Dibromomethane	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
2-Hexanone	ND	10		µg/L	1	6/19/2013 7:44:25 AM	R11386
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2013 7:44:25 AM	R11386
Methylene Chloride	ND	3.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306597

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2013 2nd QTR

Collection Date: 6/13/2013 10:20:00 AM

Lab ID: 1306597-003

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: CWS	
Styrene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Vinyl chloride	ND	1.0		µg/L	1	6/19/2013 7:44:25 AM	R11386
Xylenes, Total	ND	1.5		µg/L	1	6/19/2013 7:44:25 AM	R11386
Surr: 1,2-Dichloroethane-d4	92.1	70-130		%REC	1	6/19/2013 7:44:25 AM	R11386
Surr: 4-Bromofluorobenzene	93.5	69.5-130		%REC	1	6/19/2013 7:44:25 AM	R11386
Surr: Dibromofluoromethane	102	70-130		%REC	1	6/19/2013 7:44:25 AM	R11386
Surr: Toluene-d8	99.9	70-130		%REC	1	6/19/2013 7:44:25 AM	R11386

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306597

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2013 2nd QTR

Collection Date: 6/13/2013 11:05:00 AM

Lab ID: 1306597-004

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	1.4	0.010		mg/L	5	7/1/2013 11:20:47 AM	R11681
Cadmium	ND	0.0020		mg/L	1	7/1/2013 11:18:28 AM	R11681
Chromium	ND	0.0060		mg/L	1	6/27/2013 2:48:02 PM	R11609
Copper	ND	0.0060		mg/L	1	7/1/2013 11:18:28 AM	R11681
Iron	4.6	0.10	*	mg/L	5	6/27/2013 2:50:21 PM	R11609
Manganese	2.3	0.010	*	mg/L	5	6/27/2013 2:50:21 PM	R11609
Silver	ND	0.0050		mg/L	1	7/1/2013 11:18:28 AM	R11681
Zinc	ND	0.010		mg/L	1	6/27/2013 2:48:02 PM	R11609
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	1.5	0.010		mg/L	5	6/27/2013 1:30:15 PM	7938
Cadmium	ND	0.0020		mg/L	1	6/28/2013 1:00:04 PM	7938
Chromium	ND	0.0060		mg/L	1	6/27/2013 1:27:52 PM	7938
Copper	ND	0.0060		mg/L	1	6/28/2013 1:00:04 PM	7938
Iron	4.5	0.10	*	mg/L	5	6/27/2013 1:30:15 PM	7938
Lead	0.0070	0.0050		mg/L	1	6/27/2013 1:27:52 PM	7938
Manganese	2.4	0.010	*	mg/L	5	6/27/2013 1:30:15 PM	7938
Silver	ND	0.0050		mg/L	1	6/28/2013 1:00:04 PM	7938
Zinc	ND	0.010		mg/L	1	6/27/2013 1:27:52 PM	7938
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.012	0.0010	*	mg/L	1	6/26/2013 5:36:50 PM	R11577
Lead	ND	0.0010		mg/L	1	6/26/2013 5:36:50 PM	R11577
Selenium	0.017	0.0010		mg/L	1	6/26/2013 5:36:50 PM	R11577
Uranium	0.011	0.0010		mg/L	1	6/28/2013 2:15:06 PM	R11643
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.011	0.0010	*	mg/L	1	6/25/2013 5:35:58 PM	7938
Selenium	0.014	0.0050		mg/L	5	6/27/2013 1:50:27 PM	7938
Uranium	0.011	0.0010		mg/L	1	6/25/2013 5:35:58 PM	7938
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/19/2013 11:03:44 AM	7992
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	3400	50		µg/L	50	6/19/2013 4:37:00 PM	R11424
Toluene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
Ethylbenzene	73	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
Methyl tert-butyl ether (MTBE)	1300	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306597

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2013 2nd QTR

Collection Date: 6/13/2013 11:05:00 AM

Lab ID: 1306597-004

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Naphthalene	ND	20		µg/L	10	6/19/2013 5:05:52 PM	R11424
1-Methylnaphthalene	ND	40		µg/L	10	6/19/2013 5:05:52 PM	R11424
2-Methylnaphthalene	ND	40		µg/L	10	6/19/2013 5:05:52 PM	R11424
Acetone	ND	100		µg/L	10	6/19/2013 5:05:52 PM	R11424
Bromobenzene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
Bromodichloromethane	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
Bromoform	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
Bromomethane	ND	30		µg/L	10	6/19/2013 5:05:52 PM	R11424
2-Butanone	ND	100		µg/L	10	6/19/2013 5:05:52 PM	R11424
Carbon disulfide	ND	100		µg/L	10	6/19/2013 5:05:52 PM	R11424
Carbon Tetrachloride	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
Chlorobenzene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
Chloroethane	ND	20		µg/L	10	6/19/2013 5:05:52 PM	R11424
Chloroform	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
Chloromethane	ND	30		µg/L	10	6/19/2013 5:05:52 PM	R11424
2-Chlorotoluene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
4-Chlorotoluene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
cis-1,2-DCE	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/19/2013 5:05:52 PM	R11424
Dibromochloromethane	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
Dibromomethane	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,2-Dichlorobenzene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,3-Dichlorobenzene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,4-Dichlorobenzene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
Dichlorodifluoromethane	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,1-Dichloroethane	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,1-Dichloroethene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,2-Dichloropropane	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,3-Dichloropropane	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
2,2-Dichloropropane	ND	20		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,1-Dichloropropene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
Hexachlorobutadiene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
2-Hexanone	ND	100		µg/L	10	6/19/2013 5:05:52 PM	R11424
Isopropylbenzene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
4-Isopropyltoluene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
4-Methyl-2-pentanone	ND	100		µg/L	10	6/19/2013 5:05:52 PM	R11424
Methylene Chloride	ND	30		µg/L	10	6/19/2013 5:05:52 PM	R11424
n-Butylbenzene	ND	30		µg/L	10	6/19/2013 5:05:52 PM	R11424
n-Propylbenzene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306597

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2013 2nd QTR

Collection Date: 6/13/2013 11:05:00 AM

Lab ID: 1306597-004

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
sec-Butylbenzene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
Styrene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
tert-Butylbenzene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/19/2013 5:05:52 PM	R11424
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
trans-1,2-DCE	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,1,1-Trichloroethane	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,1,2-Trichloroethane	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
Trichloroethene (TCE)	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
Trichlorofluoromethane	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
1,2,3-Trichloropropane	ND	20		µg/L	10	6/19/2013 5:05:52 PM	R11424
Vinyl chloride	ND	10		µg/L	10	6/19/2013 5:05:52 PM	R11424
Xylenes, Total	ND	15		µg/L	10	6/19/2013 5:05:52 PM	R11424
Surr: 1,2-Dichloroethane-d4	90.8	70-130		%REC	10	6/19/2013 5:05:52 PM	R11424
Surr: 4-Bromofluorobenzene	91.0	69.5-130		%REC	10	6/19/2013 5:05:52 PM	R11424
Surr: Dibromofluoromethane	93.7	70-130		%REC	10	6/19/2013 5:05:52 PM	R11424
Surr: Toluene-d8	102	70-130		%REC	10	6/19/2013 5:05:52 PM	R11424

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
				Page 12 of 43

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306597

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2013 2nd QTR

Collection Date: 6/13/2013 11:55:00 AM

Lab ID: 1306597-005

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.019	0.0020		mg/L	1	7/1/2013 11:23:01 AM	R11681
Cadmium	ND	0.0020		mg/L	1	7/1/2013 11:23:01 AM	R11681
Chromium	ND	0.0060		mg/L	1	6/27/2013 2:52:35 PM	R11609
Copper	ND	0.0060		mg/L	1	7/1/2013 11:23:01 AM	R11681
Iron	ND	0.020		mg/L	1	6/27/2013 2:52:35 PM	R11609
Manganese	0.021	0.0020		mg/L	1	6/27/2013 2:52:35 PM	R11609
Silver	ND	0.0050		mg/L	1	7/1/2013 11:23:01 AM	R11681
Zinc	0.048	0.010		mg/L	1	6/27/2013 2:52:35 PM	R11609
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.019	0.0020		mg/L	1	6/27/2013 1:32:28 PM	7938
Cadmium	ND	0.0020		mg/L	1	6/28/2013 1:02:24 PM	7938
Chromium	ND	0.0060		mg/L	1	6/27/2013 1:32:28 PM	7938
Copper	ND	0.0060		mg/L	1	6/28/2013 1:02:24 PM	7938
Iron	ND	0.020		mg/L	1	6/27/2013 1:32:28 PM	7938
Manganese	0.020	0.0020		mg/L	1	6/27/2013 1:32:28 PM	7938
Silver	ND	0.0050		mg/L	1	6/28/2013 1:02:24 PM	7938
Zinc	ND	0.010		mg/L	1	6/27/2013 1:32:28 PM	7938
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0011	0.0010		mg/L	1	6/26/2013 5:39:28 PM	R11577
Lead	ND	0.0010		mg/L	1	6/26/2013 5:39:28 PM	R11577
Selenium	0.0024	0.0010		mg/L	1	6/26/2013 5:39:28 PM	R11577
Uranium	0.017	0.0010		mg/L	1	6/28/2013 2:17:45 PM	R11643
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	6/25/2013 5:38:24 PM	7938
Selenium	ND	0.0010		mg/L	1	6/25/2013 5:38:24 PM	7938
Uranium	0.017	0.0010		mg/L	1	6/25/2013 5:38:24 PM	7938
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/19/2013 11:05:33 AM	7992
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Toluene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Ethylbenzene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Methyl tert-butyl ether (MTBE)	15	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Naphthalene	ND	2.0		µg/L	1	6/19/2013 3:10:18 PM	R11424

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306597

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2013 2nd QTR

Collection Date: 6/13/2013 11:55:00 AM

Lab ID: 1306597-005

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Acetone	ND	10		µg/L	1	6/19/2013 3:10:18 PM	R11424
Bromobenzene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Bromoform	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Bromomethane	ND	3.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
2-Butanone	ND	10		µg/L	1	6/19/2013 3:10:18 PM	R11424
Carbon disulfide	ND	10		µg/L	1	6/19/2013 3:10:18 PM	R11424
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Chlorobenzene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Chloroethane	ND	2.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Chloroform	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Chloromethane	ND	3.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Dibromomethane	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
2-Hexanone	ND	10		µg/L	1	6/19/2013 3:10:18 PM	R11424
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2013 3:10:18 PM	R11424
Methylene Chloride	ND	3.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306597

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2013 2nd QTR

Collection Date: 6/13/2013 11:55:00 AM

Lab ID: 1306597-005

Matrix: AQUEOUS

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Styrene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Vinyl chloride	ND	1.0		µg/L	1	6/19/2013 3:10:18 PM	R11424
Xylenes, Total	ND	1.5		µg/L	1	6/19/2013 3:10:18 PM	R11424
Surr: 1,2-Dichloroethane-d4	93.1	70-130		%REC	1	6/19/2013 3:10:18 PM	R11424
Surr: 4-Bromofluorobenzene	93.2	69.5-130		%REC	1	6/19/2013 3:10:18 PM	R11424
Surr: Dibromofluoromethane	99.4	70-130		%REC	1	6/19/2013 3:10:18 PM	R11424
Surr: Toluene-d8	101	70-130		%REC	1	6/19/2013 3:10:18 PM	R11424

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
				Page 15 of 43

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306597

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2013 2nd QTR

Collection Date:

Lab ID: 1306597-006

Matrix: TRIP BLANK

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/18/2013 11:35:15 PM	R11387
Surr: BFB	90.1	51.5-151		%REC	1	6/18/2013 11:35:15 PM	R11387
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Toluene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Ethylbenzene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Naphthalene	ND	2.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Acetone	ND	10		µg/L	1	6/19/2013 5:34:43 PM	R11424
Bromobenzene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Bromoform	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Bromomethane	ND	3.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
2-Butanone	ND	10		µg/L	1	6/19/2013 5:34:43 PM	R11424
Carbon disulfide	ND	10		µg/L	1	6/19/2013 5:34:43 PM	R11424
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Chlorobenzene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Chloroethane	ND	2.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Chloroform	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Chloromethane	ND	3.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Dibromomethane	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306597

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2013 2nd QTR

Collection Date:

Lab ID: 1306597-006

Matrix: TRIP BLANK

Received Date: 6/14/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
2-Hexanone	ND	10		µg/L	1	6/19/2013 5:34:43 PM	R11424
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2013 5:34:43 PM	R11424
Methylene Chloride	ND	3.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Styrene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Vinyl chloride	ND	1.0		µg/L	1	6/19/2013 5:34:43 PM	R11424
Xylenes, Total	ND	1.5		µg/L	1	6/19/2013 5:34:43 PM	R11424
Surr: 1,2-Dichloroethane-d4	97.6	70-130		%REC	1	6/19/2013 5:34:43 PM	R11424
Surr: 4-Bromofluorobenzene	96.9	69.5-130		%REC	1	6/19/2013 5:34:43 PM	R11424
Surr: Dibromofluoromethane	105	70-130		%REC	1	6/19/2013 5:34:43 PM	R11424
Surr: Toluene-d8	105	70-130		%REC	1	6/19/2013 5:34:43 PM	R11424

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R11609	RunNo:	11609					
Prep Date:		Analysis Date:	6/27/2013	SeqNo:	329179	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Chromium	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R11609	RunNo:	11609					
Prep Date:		Analysis Date:	6/27/2013	SeqNo:	329180	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	50	1.0	50.00	0	101	85	115			
Chromium	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Magnesium	51	1.0	50.00	0	102	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Potassium	50	1.0	50.00	0	99.5	85	115			
Sodium	50	1.0	50.00	0	99.5	85	115			
Zinc	0.49	0.010	0.5000	0	98.1	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R11681	RunNo:	11681					
Prep Date:		Analysis Date:	7/1/2013	SeqNo:	331336	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Copper	ND	0.0060								
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R11681	RunNo:	11681					
Prep Date:		Analysis Date:	7/1/2013	SeqNo:	331337	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.8	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID LCS	SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: LCSW	Batch ID: R11681		RunNo: 11681							
Prep Date:	Analysis Date: 7/1/2013		SeqNo: 331337		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.49	0.0060	0.5000	0	98.9	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			
Sodium	49	1.0	50.00	0	97.6	85	115			

Sample ID 1306944-002AMS	SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11681		RunNo: 11681							
Prep Date:	Analysis Date: 7/1/2013		SeqNo: 331379		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.54	0.0020	0.5000	0.03281	101	70	130			
Cadmium	0.50	0.0020	0.5000	0	101	70	130			
Copper	0.50	0.0060	0.5000	0	99.2	70	130			
Silver	0.11	0.0050	0.1000	0	107	70	130			
Sodium	54	1.0	50.00	5.690	96.7	70	130			

Sample ID 1306944-002AMSD	SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11681		RunNo: 11681							
Prep Date:	Analysis Date: 7/1/2013		SeqNo: 331380		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.54	0.0020	0.5000	0.03281	101	70	130	0.257	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	0.579	20	
Copper	0.50	0.0060	0.5000	0	99.3	70	130	0.123	20	
Silver	0.11	0.0050	0.1000	0	106	70	130	0.839	20	
Sodium	55	1.0	50.00	5.690	98.6	70	130	1.77	20	

Sample ID MB	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PBW	Batch ID: R11681		RunNo: 11681							
Prep Date:	Analysis Date: 7/1/2013		SeqNo: 331389		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Copper	ND	0.0060								
Silver	ND	0.0050								
Sodium	ND	1.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 P Sample pH greater than 2 for VOA and TOC only.
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11681		RunNo: 11681					
Prep Date:			Analysis Date: 7/1/2013		SeqNo: 331390		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	102	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.2	85	115			
Copper	0.50	0.0060	0.5000	0	99.3	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Sodium	49	1.0	50.00	0	98.4	85	115			

Sample ID	1306A44-004AMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11681		RunNo: 11681					
Prep Date:			Analysis Date: 7/1/2013		SeqNo: 331414		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0.01118	102	70	130			
Cadmium	0.54	0.0020	0.5000	0	107	70	130			
Copper	0.50	0.0060	0.5000	0	101	70	130			
Silver	0.12	0.0050	0.1000	0.01117	112	70	130			
Sodium	65	1.0	50.00	15.89	98.7	70	130			

Sample ID	1306A44-004AMSD			SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID: R11681		RunNo: 11681					
Prep Date:	Analysis Date: 7/1/2013			SeqNo: 331415		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0.01118	99.1	70	130	3.12	20	
Cadmium	0.52	0.0020	0.5000	0	104	70	130	3.52	20	
Copper	0.49	0.0060	0.5000	0	97.6	70	130	3.23	20	
Silver	0.12	0.0050	0.1000	0.01117	110	70	130	2.44	20	
Sodium	65	1.0	50.00	15.89	98.4	70	130	0.201	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	MB-7938		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 7938		RunNo: 11609					
Prep Date:	6/17/2013		Analysis Date: 6/27/2013		SeqNo: 329181		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								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-7938		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 7938		RunNo: 11609					
Prep Date:	6/17/2013		Analysis Date: 6/27/2013		SeqNo: 329182		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0	104	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Chromium	0.54	0.0060	0.5000	0	107	85	115			
Copper	0.53	0.0060	0.5000	0	105	85	115			
Iron	0.54	0.020	0.5000	0	108	85	115			
Lead	0.52	0.0050	0.5000	0	104	85	115			
Manganese	0.53	0.0020	0.5000	0	105	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.50	0.010	0.5000	0	99.9	85	115			

Sample ID	1306597-005CMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	OW-13		Batch ID: 7938		RunNo: 11609					
Prep Date:	6/17/2013		Analysis Date: 6/27/2013		SeqNo: 329303		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.58	0.0020	0.5000	0.01928	111	70	130			
Chromium	0.51	0.0060	0.5000	0	103	70	130			
Iron	0.54	0.020	0.5000	0	109	70	130			
Manganese	0.58	0.0020	0.5000	0.01957	111	70	130			
Zinc	0.50	0.010	0.5000	0	99.7	70	130			

Sample ID	1306597-005CMSD			SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	OW-13			Batch ID:	7938		RunNo:	11609			
Prep Date:	6/17/2013			Analysis Date:	6/27/2013		SeqNo:	329304		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	1306597-005CMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	OW-13		Batch ID: 7938		RunNo: 11609					
Prep Date:	6/17/2013		Analysis Date: 6/27/2013		SeqNo: 329304		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.57	0.0020	0.5000	0.01928	111	70	130	0.214	20	
Chromium	0.52	0.0060	0.5000	0	103	70	130	0.153	20	
Iron	0.54	0.020	0.5000	0	108	70	130	0.510	20	
Manganese	0.57	0.0020	0.5000	0.01957	111	70	130	0.0765	20	
Zinc	0.50	0.010	0.5000	0	99.2	70	130	0.497	20	

Sample ID	1306597-005CMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	OW-13		Batch ID: 7938		RunNo: 11655					
Prep Date:	6/17/2013		Analysis Date: 6/28/2013		SeqNo: 330573		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.49	0.0020	0.5000	0	98.9	70	130			
Copper	0.52	0.0060	0.5000	0	104	70	130			
Silver	0.10	0.0050	0.1000	0.0008200	100	70	130			

Sample ID	1306597-005CMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	OW-13		Batch ID: 7938		RunNo: 11655					
Prep Date:	6/17/2013		Analysis Date: 6/28/2013		SeqNo: 330574		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	99.4	70	130	0.446	20	
Copper	0.52	0.0060	0.5000	0	104	70	130	0.0595	20	
Silver	0.10	0.0050	0.1000	0.0008200	100	70	130	0.00991	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 328123		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	98.0	85	115			
Lead	0.025	0.0010	0.02500	0	99.7	85	115			
Selenium	0.024	0.0010	0.02500	0	97.4	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 328124		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.7	85	115			
Lead	0.026	0.0010	0.02500	0	103	85	115			
Selenium	0.025	0.0010	0.02500	0	99.6	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R11577			RunNo: 11577					
Prep Date:		Analysis Date: 6/26/2013			SeqNo: 328125		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R11577			RunNo: 11577					
Prep Date:		Analysis Date: 6/26/2013			SeqNo: 328126		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	1306586-002AMS			SampType: MS		TestCode: EPA 200.8: Dissolved Metals				
Client ID:	BatchQC			Batch ID: R11577		RunNo: 11577				
Prep Date:				Analysis Date: 6/26/2013		SeqNo: 329350		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0.0003280	105	70	130			
Lead	0.026	0.0010	0.02500	.00002579	103	70	130			
Selenium	0.030	0.0010	0.02500	0.001294	114	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	1306587-006AMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 329354		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.003941	82.1	70	130			
Lead	0.027	0.0010	0.02500	0.0007356	106	70	130			

Sample ID	1306587-006AMSD		SampType: MSD		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 329355		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.003941	80.7	70	130	1.41	20	
Lead	0.027	0.0010	0.02500	0.0007356	106	70	130	0.502	20	

Sample ID	1306597-001EMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	OW-10		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 329369		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0010	0.02500	0.002526	106	70	130			
Lead	0.027	0.0010	0.02500	0.0001562	106	70	130			
Selenium	0.044	0.0010	0.02500	0.01861	100	70	130			

Sample ID	1306597-001EMSD		SampType: MSD		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	OW-10		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 329370		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0010	0.02500	0.002526	105	70	130	1.55	20	
Lead	0.026	0.0010	0.02500	0.0001562	105	70	130	1.09	20	
Selenium	0.042	0.0010	0.02500	0.01861	95.3	70	130	2.71	20	

Sample ID	1306710-004AMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 329377		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0.003581	92.3	70	130			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 329379		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11577		RunNo: 11577					
Prep Date:			Analysis Date: 6/26/2013		SeqNo: 329379		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.9	85	115			
Lead	0.025	0.0010	0.02500	0	99.5	85	115			
Selenium	0.024	0.0010	0.02500	0	96.2	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R11577			RunNo: 11577					
Prep Date:		Analysis Date: 6/26/2013			SeqNo: 329380		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	1306587-006AMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11643		RunNo: 11643					
Prep Date:			Analysis Date: 6/28/2013		SeqNo: 330368		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.24	0.0050	0.1250	0.1024	109	70	130			

Sample ID	1306587-006AMSD		SampType: MSD		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11643		RunNo: 11643					
Prep Date:			Analysis Date: 6/28/2013		SeqNo: 330369		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.24	0.0050	0.1250	0.1024	112	70	130	1.68	20	

Sample ID	1306597-001EMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	OW-10		Batch ID: R11643		RunNo: 11643					
Prep Date:			Analysis Date: 6/28/2013		SeqNo: 330379		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.19	0.0050	0.1250	0.07583	94.1	70	130			

Sample ID	1306597-001EMSD		SampType: MSD		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	OW-10		Batch ID: R11643		RunNo: 11643					
Prep Date:			Analysis Date: 6/28/2013		SeqNo: 330380		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.20	0.0050	0.1250	0.07583	102	70	130	5.23	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11643		RunNo: 11643					
Prep Date:			Analysis Date: 6/28/2013		SeqNo: 330391		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	103	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11643		RunNo: 11643					
Prep Date:			Analysis Date: 6/28/2013		SeqNo: 330392		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	103	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R11643			RunNo: 11643					
Prep Date:		Analysis Date: 6/28/2013			SeqNo: 330393		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R11643			RunNo: 11643					
Prep Date:		Analysis Date: 6/28/2013			SeqNo: 330394		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	1306569-002ALLMS			SampType:	MSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	BatchQC			Batch ID:	7938			RunNo:	11537		
Prep Date:	6/17/2013			Analysis Date:	6/25/2013			SeqNo:	327664		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.039	0.0010	0.02500	0.01305	104	70	130				

Sample ID	1306569-006ALLMS			SampType:	MSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	BatchQC			Batch ID:	7938			RunNo:	11537		
Prep Date:	6/17/2013			Analysis Date:	6/25/2013			SeqNo:	327669		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.040	0.0010	0.02500	0.01391	104	70	130				

Sample ID	1306569-006ALLMS			SampType:	MSDLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	BatchQC			Batch ID:	7938			RunNo:	11537		
Prep Date:	6/17/2013			Analysis Date:	6/25/2013			SeqNo:	327670		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.040	0.0010	0.02500	0.01391	105	70	130	0.904	20		

Sample ID	LL LCS-7938			SampType:	LCSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	BatchQC			Batch ID:	7938			RunNo:	11537		
Prep Date:	6/17/2013			Analysis Date:	6/25/2013			SeqNo:	327702		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.026	0.0010	0.02500	0	103	85	115				
Lead	0.025	0.0010	0.02500	0	101	85	115				
Selenium	0.025	0.0010	0.02500	0	98.9	85	115				
Uranium	0.026	0.0010	0.02500	0	105	85	115				

Sample ID	MB-7938			SampType:	MBLK			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	PBW			Batch ID:	7938			RunNo:	11537		
Prep Date:	6/17/2013			Analysis Date:	6/25/2013			SeqNo:	327706		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	ND	0.0010									
Lead	ND	0.0010									
Selenium	ND	0.0010									
Uranium	ND	0.0010									

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	MB-7959		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 7959		RunNo: 11368					
Prep Date:	6/17/2013		Analysis Date: 6/18/2013		SeqNo: 321240		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-7959		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 7959		RunNo: 11368					
Prep Date:	6/17/2013		Analysis Date: 6/18/2013		SeqNo: 321243		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.2	80	120			

Sample ID	1306597-001FMS		SampType: MS		TestCode: EPA Method 245.1: Mercury					
Client ID:	OW-10		Batch ID: 7959		RunNo: 11368					
Prep Date:	6/17/2013		Analysis Date: 6/18/2013		SeqNo: 321268		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	95.4	75	125			

Sample ID	1306597-001FMSD			SampType:	MSD		TestCode:	EPA Method 245.1: Mercury			
Client ID:	OW-10			Batch ID:	7959		RunNo:	11368			
Prep Date:	6/17/2013			Analysis Date:	6/18/2013		SeqNo:	321269		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0047	0.00020	0.005000	0	93.7	75	125	1.88	20		

Sample ID	MB-7992		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 7992		RunNo: 11403					
Prep Date:	6/18/2013		Analysis Date: 6/19/2013		SeqNo: 322361		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-7992		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 7992		RunNo: 11403					
Prep Date:	6/18/2013		Analysis Date: 6/19/2013		SeqNo: 322362		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.9	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	1306604-003EMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	7992	RunNo:	11403					
Prep Date:	6/18/2013	Analysis Date:	6/19/2013	SeqNo:	322375	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	95.9	75	125			

Sample ID	1306604-003EMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	7992	RunNo:	11403					
Prep Date:	6/18/2013	Analysis Date:	6/19/2013	SeqNo:	322376	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0045	0.00020	0.005000	0	90.4	75	125	5.93	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R11340		RunNo: 11340							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320346		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R11340		RunNo: 11340							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320347		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	5.0	0.50	5.000	0	99.6	90	110			
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	99.6	90	110			
Bromide	2.5	0.10	2.500	0	101	90	110			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	104	90	110			
Phosphorus, Orthophosphate (As P)	5.2	0.50	5.000	0	104	90	110			
Sulfate	10	0.50	10.00	0	101	90	110			

Sample ID 1306588-001AMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R11340		RunNo: 11340							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320353		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.0	0.10	0.5000	1.568	87.8	76.9	114			
Nitrogen, Nitrite (As N)	7.4	0.10	1.000	6.702	74.6	84.3	102			S
Bromide	2.6	0.10	2.500	0.2783	92.7	92	104			
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	96.2	93	113			
Phosphorus, Orthophosphate (As P)	9.4	0.50	5.000	4.435	99.8	73.9	120			

Sample ID 1306588-001AMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R11340		RunNo: 11340							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320354		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.0	0.10	0.5000	1.568	82.8	76.9	114	1.27	20	
Nitrogen, Nitrite (As N)	7.5	0.10	1.000	6.702	75.1	84.3	102	0.0671	20	S
Bromide	2.6	0.10	2.500	0.2783	92.3	92	104	0.448	20	
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	95.3	93	113	0.952	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID 1306588-001AMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R11340		RunNo: 11340							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320354		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P)	9.4	0.50	5.000	4.435	99.6	73.9	120	0.109	20	

Sample ID 1306581-001CMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R11340		RunNo: 11340							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320359		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.3	0.10	0.5000	0.8218	86.9	76.9	114			
Chloride	18	0.50	5.000	12.83	104	89.9	119			
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	94.6	84.3	102			
Bromide	2.5	0.10	2.500	0.1283	95.3	92	104			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0.09280	98.1	93	113			
Phosphorus, Orthophosphate (As P)	5.0	0.50	5.000	0	100	73.9	120			

Sample ID 1306581-001CMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R11340		RunNo: 11340							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320360		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.3	0.10	0.5000	0.8218	90.2	76.9	114	1.29	20	
Chloride	18	0.50	5.000	12.83	105	89.9	119	0.246	20	
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	94.9	84.3	102	0.348	20	
Bromide	2.5	0.10	2.500	0.1283	95.6	92	104	0.243	20	
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0.09280	98.2	93	113	0.118	20	
Phosphorus, Orthophosphate (As P)	5.0	0.50	5.000	0	100	73.9	120	0.188	20	

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R11340		RunNo: 11340							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320400		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R11340		RunNo: 11340							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320401		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	101	90	110			
Chloride	4.8	0.50	5.000	0	95.3	90	110			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	95.8	90	110			
Bromide	2.4	0.10	2.500	0	96.9	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.7	90	110			
Phosphorus, Orthophosphate (As P)	5.1	0.50	5.000	0	101	90	110			
Sulfate	9.6	0.50	10.00	0	96.1	90	110			

Sample ID 1306587-001AMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R11340		RunNo: 11340							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320406		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	18	0.50	5.000	12.63	112	89.9	119			
Bromide	2.5	0.10	2.500	0	98.4	92	104			

Sample ID 1306587-001AMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R11340		RunNo: 11340							
Prep Date:	Analysis Date: 6/14/2013		SeqNo: 320407		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	18	0.50	5.000	12.63	108	89.9	119	1.07	20	
Bromide	2.4	0.10	2.500	0	95.2	92	104	3.31	20	

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R11437		RunNo: 11437							
Prep Date:	Analysis Date: 6/19/2013		SeqNo: 323319		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R11437		RunNo: 11437							
Prep Date:	Analysis Date: 6/19/2013		SeqNo: 323320		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.4	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	MB-7930		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 7930		RunNo: 11305					
Prep Date:	6/14/2013		Analysis Date: 6/14/2013		SeqNo: 319910		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		105	75.4	146			

Sample ID	LCS-7930		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 7930		RunNo: 11305					
Prep Date:	6/14/2013		Analysis Date: 6/14/2013		SeqNo: 319911		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.9	1.0	5.000	0	98.2	89.1	151			
Surr: DNOP	0.51		0.5000		103	75.4	146			

Sample ID	LCSD-7930		SampType: LCSD		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSS02		Batch ID: 7930		RunNo: 11305					
Prep Date:	6/14/2013		Analysis Date: 6/14/2013		SeqNo: 319912		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	100	89.1	151	2.11	20	
Surr: DNOP	0.55		0.5000		110	75.4	146	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID: R11387			RunNo: 11387					
Prep Date:		Analysis Date: 6/18/2013			SeqNo: 321875		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		90.1	51.5	151			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: R11387		RunNo: 11387					
Prep Date:			Analysis Date: 6/18/2013		SeqNo: 321876		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.49	0.050	0.5000	0	98.1	73.2	124			
Surr: BFB	20		20.00		97.8	51.5	151			

Sample ID	1306595-006AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC		Batch ID: R11387		RunNo: 11387					
Prep Date:			Analysis Date: 6/18/2013		SeqNo: 321884		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	100	65.2	137			
Surr: BFB	20		20.00		99.0	51.5	151			

Sample ID	1306595-006AMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC		Batch ID: R11387		RunNo: 11387					
Prep Date:			Analysis Date: 6/18/2013		SeqNo: 321885		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	95.7	65.2	137	4.85	20	
Surr: BFB	20		20.00		97.7	51.5	151	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R11386	RunNo:	11386					
Prep Date:		Analysis Date:	6/18/2013	SeqNo:	321868	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								
1,1-Dichloropropene	ND	1.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R11386			RunNo: 11386					
Prep Date:		Analysis Date: 6/18/2013			SeqNo: 321868		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	69.5	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	9.6		10.00		96.2	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R11386			RunNo: 11386					
Prep Date:		Analysis Date: 6/18/2013			SeqNo: 321870		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	114	70	130			
Toluene	23	1.0	20.00	0	113	80	120			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	110	85.8	133			
Trichloroethene (TCE)	22	1.0	20.00	0	109	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R11386			RunNo: 11386						
Prep Date:	Analysis Date: 6/18/2013			SeqNo: 321870		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.1	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.5	69.5	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID 1306461-005a ms	SampType: MS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: BatchQC	Batch ID: R11386			RunNo: 11386						
Prep Date:	Analysis Date: 6/18/2013			SeqNo: 321879		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130			
Toluene	22	1.0	20.00	0	111	68.5	128			
Chlorobenzene	20	1.0	20.00	0	99.5	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	117	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0.5508	100	61.3	102			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	69.5	130			
Surr: Dibromofluoromethane	9.7		10.00		96.6	70	130			
Surr: Toluene-d8	9.9		10.00		98.6	70	130			

Sample ID 1306461-005a msd	SampType: MSD			TestCode: EPA Method 8260B: VOLATILES						
Client ID: BatchQC	Batch ID: R11386			RunNo: 11386						
Prep Date:	Analysis Date: 6/18/2013			SeqNo: 321881		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	106	70	130	31.1	20	R
Toluene	22	1.0	20.00	0	108	68.5	128	34.4	20	R
Chlorobenzene	18	1.0	20.00	0	92.2	70	130	23.9	20	R
1,1-Dichloroethene	20	1.0	20.00	0	97.9	70	130	42.3	20	R
Trichloroethene (TCE)	20	1.0	20.00	0.5508	97.2	61.3	102	27.2	20	R
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.8		10.00		97.9	69.5	130	0	0	
Surr: Dibromofluoromethane	9.6		10.00		96.5	70	130	0	0	
Surr: Toluene-d8	10		10.00		104	70	130	0	0	

Sample ID 5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R11424			RunNo: 11424						
Prep Date:	Analysis Date: 6/19/2013			SeqNo: 322997		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R11424	RunNo:	11424					
Prep Date:		Analysis Date:	6/19/2013	SeqNo:	322997	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R11424			RunNo: 11424					
Prep Date:		Analysis Date: 6/19/2013			SeqNo: 322997		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.8	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.0	69.5	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.8		10.00		98.1	70	130			

Sample ID	100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES						
Client ID:	LCSW	Batch ID: R11424		RunNo: 11424						
Prep Date:	Analysis Date: 6/19/2013		SeqNo: 322999		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	111	70	130			
Toluene	23	1.0	20.00	0	113	80	120			
Chlorobenzene	21	1.0	20.00	0	105	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	105	85.8	133			
Trichloroethene (TCE)	22	1.0	20.00	0	109	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.1	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R11424			RunNo: 11424					
Prep Date:		Analysis Date: 6/19/2013			SeqNo: 322999		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	9.3		10.00		93.3	69.5	130			
Surr: Dibromofluoromethane	9.8		10.00		98.0	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID	1306597-005a ms		SampType: MS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	OW-13		Batch ID: R11424		RunNo: 11424					
Prep Date:			Analysis Date: 6/19/2013		SeqNo: 323008		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	115	70	130			
Toluene	23	1.0	20.00	0	116	68.5	128			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	105	70	130			
Trichloroethene (TCE)	23	1.0	20.00	0	113	61.3	102			S
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.4	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		94.6	69.5	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Sample ID	1306597-005a msd		SampType: MSD		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	OW-13		Batch ID: R11424		RunNo: 11424					
Prep Date:			Analysis Date: 6/19/2013		SeqNo: 323009		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130	4.04	20	
Toluene	22	1.0	20.00	0	112	68.5	128	3.67	20	
Chlorobenzene	21	1.0	20.00	0	104	70	130	0.649	20	
1,1-Dichloroethene	20	1.0	20.00	0	100	70	130	4.47	20	
Trichloroethene (TCE)	20	1.0	20.00	0	101	61.3	102	11.5	20	
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.1		10.00		90.8	69.5	130	0	0	
Surr: Dibromofluoromethane	9.4		10.00		94.3	70	130	0	0	
Surr: Toluene-d8	10		10.00		102	70	130	0	0	

Sample ID	rb2	SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID:	R11424		RunNo:	11424				
Prep Date:		Analysis Date:	6/19/2013		SeqNo:	325247	Units:	µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	rb2	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R11424	RunNo:	11424					
Prep Date:		Analysis Date:	6/19/2013	SeqNo:	325247	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	rb2	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R11424	RunNo:	11424					
Prep Date:		Analysis Date:	6/19/2013	SeqNo:	325247	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.0	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.1	69.5	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	100ng lcs ii	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R11424	RunNo:	11424					
Prep Date:		Analysis Date:	6/19/2013	SeqNo:	325258	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	115	70	130			
Toluene	23	1.0	20.00	0	114	80	120			
Chlorobenzene	21	1.0	20.00	0	105	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	107	85.8	133			
Trichloroethene (TCE)	22	1.0	20.00	0	112	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.8	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.0	69.5	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306597

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	100ng lcs ii	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R11424			RunNo: 11424					
Prep Date:		Analysis Date: 6/19/2013			SeqNo: 325258		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1306597

RcptNo: 1

Received by/date: AT 06/14/13

Logged By: Lindsay Mangin 6/14/2013 9:47:00 AM [Signature]

Completed By: Lindsay Mangin 6/14/2013 11:05:13 AM [Signature]

Reviewed By: [Signature] 06/14/13

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(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: 11
(<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:	<u>[Signature]</u>	Date:	<u>06/14/13</u>
By Whom:	<u>[Signature]</u>	Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	<u>[Signature]</u>		
Client Instructions:	<u>[Signature]</u>		

17. Additional remarks:

18. Cooler Information

Cooler No.	Temp °C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	2.0	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 09, 2013

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 2013 2nd QTR

OrderNo.: 1306768

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/18/2013 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 1306768

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2013 2nd QTR

Collection Date: 6/17/2013 9:05:00 AM

Lab ID: 1306768-001

Matrix: AQUEOUS

Received Date: 6/18/2013 9:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.078	0.0020		mg/L	1	7/1/2013 11:51:45 AM	R11681
Cadmium	ND	0.0020		mg/L	1	7/1/2013 11:51:45 AM	R11681
Chromium	ND	0.0060		mg/L	1	6/27/2013 3:23:08 PM	R11609
Copper	ND	0.0060		mg/L	1	7/1/2013 11:51:45 AM	R11681
Iron	0.048	0.020		mg/L	1	6/27/2013 3:23:08 PM	R11609
Lead	ND	0.0050		mg/L	1	7/1/2013 11:51:45 AM	R11681
Manganese	0.025	0.0020		mg/L	1	6/27/2013 3:23:08 PM	R11609
Silver	ND	0.0050		mg/L	1	7/1/2013 11:51:45 AM	R11681
Zinc	ND	0.010		mg/L	1	6/27/2013 3:23:08 PM	R11609
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.079	0.0020		mg/L	1	6/25/2013 5:53:10 PM	8022
Cadmium	ND	0.0020		mg/L	1	6/25/2013 5:53:10 PM	8022
Chromium	ND	0.0060		mg/L	1	6/25/2013 5:53:10 PM	8022
Copper	ND	0.0060		mg/L	1	6/25/2013 5:53:10 PM	8022
Iron	0.055	0.020		mg/L	1	6/25/2013 5:53:10 PM	8022
Lead	ND	0.0050		mg/L	1	6/25/2013 5:53:10 PM	8022
Manganese	0.026	0.0020		mg/L	1	6/25/2013 5:53:10 PM	8022
Silver	ND	0.0050		mg/L	1	6/28/2013 1:28:26 PM	8022
Zinc	ND	0.010		mg/L	1	6/27/2013 2:14:34 PM	8022
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0019	0.0010		mg/L	1	7/1/2013 1:37:50 PM	R11676
Selenium	0.0055	0.0010		mg/L	1	7/1/2013 1:37:50 PM	R11676
Uranium	0.054	0.0050	*	mg/L	5	7/5/2013 12:16:01 PM	R11758
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0013	0.0010		mg/L	1	7/2/2013 4:45:13 PM	8022
Selenium	0.0027	0.0010		mg/L	1	7/2/2013 4:45:13 PM	8022
Uranium	0.054	0.0050	*	mg/L	5	7/3/2013 11:49:03 AM	8022
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/27/2013 4:24:15 PM	8137
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Toluene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Ethylbenzene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Methyl tert-butyl ether (MTBE)	2500	20		µg/L	20	6/19/2013 9:24:54 PM	R11424
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306768

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2013 2nd QTR

Collection Date: 6/17/2013 9:05:00 AM

Lab ID: 1306768-001

Matrix: AQUEOUS

Received Date: 6/18/2013 9:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Naphthalene	ND	2.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Acetone	ND	10		µg/L	1	6/19/2013 9:53:50 PM	R11424
Bromobenzene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Bromoform	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Bromomethane	ND	3.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
2-Butanone	ND	10		µg/L	1	6/19/2013 9:53:50 PM	R11424
Carbon disulfide	ND	10		µg/L	1	6/19/2013 9:53:50 PM	R11424
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Chlorobenzene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Chloroethane	ND	2.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Chloroform	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Chloromethane	ND	3.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Dibromomethane	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
2-Hexanone	ND	10		µg/L	1	6/19/2013 9:53:50 PM	R11424
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2013 9:53:50 PM	R11424
Methylene Chloride	ND	3.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
n-Butylbenzene	ND	3.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1306768

Date Reported: 7/9/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2013 2nd QTR

Collection Date: 6/17/2013 9:05:00 AM

Lab ID: 1306768-001

Matrix: AQUEOUS

Received Date: 6/18/2013 9:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: CWS	
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Styrene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Vinyl chloride	ND	1.0		µg/L	1	6/19/2013 9:53:50 PM	R11424
Xylenes, Total	ND	1.5		µg/L	1	6/19/2013 9:53:50 PM	R11424
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	6/19/2013 9:53:50 PM	R11424
Surr: 4-Bromofluorobenzene	92.0	69.5-130		%REC	1	6/19/2013 9:53:50 PM	R11424
Surr: Dibromofluoromethane	110	70-130		%REC	1	6/19/2013 9:53:50 PM	R11424
Surr: Toluene-d8	109	70-130		%REC	1	6/19/2013 9:53:50 PM	R11424

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
				Page 3 of 19

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306768

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R11609	RunNo:	11609					
Prep Date:		Analysis Date:	6/27/2013	SeqNo:	329179	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R11609	RunNo:	11609					
Prep Date:		Analysis Date:	6/27/2013	SeqNo:	329180	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Zinc	0.49	0.010	0.5000	0	98.1	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R11681	RunNo:	11681					
Prep Date:		Analysis Date:	7/1/2013	SeqNo:	331336	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Copper	ND	0.0060								
Lead	ND	0.0050								
Silver	ND	0.0050								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R11681	RunNo:	11681					
Prep Date:		Analysis Date:	7/1/2013	SeqNo:	331337	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.8	85	115			
Copper	0.49	0.0060	0.5000	0	98.9	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306768

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	1306944-002AMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11681		RunNo: 11681					
Prep Date:			Analysis Date: 7/1/2013		SeqNo: 331379		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.54	0.0020	0.5000	0.03281	101	70	130			
Cadmium	0.50	0.0020	0.5000	0	101	70	130			
Copper	0.50	0.0060	0.5000	0	99.2	70	130			
Silver	0.11	0.0050	0.1000	0	107	70	130			

Sample ID	1306944-002AMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11681		RunNo: 11681					
Prep Date:			Analysis Date: 7/1/2013		SeqNo: 331380		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.54	0.0020	0.5000	0.03281	101	70	130	0.257	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	0.579	20	
Copper	0.50	0.0060	0.5000	0	99.3	70	130	0.123	20	
Silver	0.11	0.0050	0.1000	0	106	70	130	0.839	20	

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R11681			RunNo: 11681					
Prep Date:		Analysis Date: 7/1/2013			SeqNo: 331389		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Copper	ND	0.0060								
Lead	ND	0.0050								
Silver	ND	0.0050								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11681		RunNo: 11681					
Prep Date:			Analysis Date: 7/1/2013		SeqNo: 331390		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	102	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.2	85	115			
Copper	0.50	0.0060	0.5000	0	99.3	85	115			
Lead	0.51	0.0050	0.5000	0	102	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306768

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	1306A44-004AMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11681		RunNo: 11681					
Prep Date:			Analysis Date: 7/1/2013		SeqNo: 331414		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0.01118	102	70	130			
Cadmium	0.54	0.0020	0.5000	0	107	70	130			
Copper	0.50	0.0060	0.5000	0	101	70	130			
Silver	0.12	0.0050	0.1000	0.01117	112	70	130			

Sample ID	1306A44-004AMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R11681		RunNo: 11681					
Prep Date:			Analysis Date: 7/1/2013		SeqNo: 331415		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0.01118	99.1	70	130	3.12	20	
Cadmium	0.52	0.0020	0.5000	0	104	70	130	3.52	20	
Copper	0.49	0.0060	0.5000	0	97.6	70	130	3.23	20	
Silver	0.12	0.0050	0.1000	0.01117	110	70	130	2.44	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306768

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	MB-8022		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 8022		RunNo: 11552					
Prep Date:	6/20/2013		Analysis Date: 6/25/2013		SeqNo: 327348		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								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-8022		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 8022		RunNo: 11552					
Prep Date:	6/20/2013		Analysis Date: 6/25/2013		SeqNo: 327349		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	0.50	0.0020	0.5000	0	100	85	115			
Chromium	0.52	0.0060	0.5000	0	104	85	115			
Copper	0.49	0.0060	0.5000	0	99.0	85	115			
Iron	0.50	0.020	0.5000	0	99.8	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Silver	0.10	0.0050	0.1000	0	105	85	115			
Zinc	0.48	0.010	0.5000	0	96.8	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306768

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	LCS			SampType:	LCS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	LCSW			Batch ID:	R11676			RunNo:	11676		
Prep Date:				Analysis Date:	7/1/2013			SeqNo:	331193		
									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	102	85	115				
Selenium	0.025	0.0010	0.02500	0	100	85	115				

Sample ID	MB			SampType:	MBLK			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	PBW			Batch ID:	R11676			RunNo:	11676		
Prep Date:				Analysis Date:	7/1/2013			SeqNo:	331194		
									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	1306929-005AMS			SampType:	MS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	R11676			RunNo:	11676		
Prep Date:				Analysis Date:	7/1/2013			SeqNo:	331587		
									Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.026	0.0010	0.02500	0	104	70	130				
Selenium	0.028	0.0010	0.02500	0	112	70	130				

Sample ID	1306929-005AMSD			SampType:	MSD			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	R11676			RunNo:	11676		
Prep Date:				Analysis Date:	7/1/2013			SeqNo:	331589		
									Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.027	0.0010	0.02500	0	107	70	130	2.94	20		
Selenium	0.029	0.0010	0.02500	0	117	70	130	4.32	20		

Sample ID	1306939-011AMS			SampType:	MS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	R11676			RunNo:	11676		
Prep Date:				Analysis Date:	7/1/2013			SeqNo:	331597		
									Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.027	0.0010	0.02500	0.0001454	106	70	130				
Selenium	0.028	0.0010	0.02500	0.0003029	112	70	130				

Sample ID	1306C15-014AMS			SampType:	MS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	R11676			RunNo:	11676		
Prep Date:				Analysis Date:	7/1/2013			SeqNo:	331621		
									Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.031	0.0010	0.02500	0.001219	117	70	130				

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306768

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	1306C15-014AMSD			SampType:	MSD			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	R11676			RunNo:	11676		
Prep Date:				Analysis Date:	7/1/2013			SeqNo:	331623		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.031	0.0010	0.02500	0.001219	117	70	130	0.0759	20		

Sample ID	LCS			SampType:	LCS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	LCSW			Batch ID:	R11676			RunNo:	11676		
Prep Date:				Analysis Date:	7/1/2013			SeqNo:	331627		
								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	98.0	85	115				
Selenium	0.025	0.0010	0.02500	0	99.9	85	115				

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11676		RunNo: 11676					
Prep Date:			Analysis Date: 7/1/2013		SeqNo: 331629		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.4	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R11676			RunNo: 11676					
Prep Date:		Analysis Date: 7/1/2013			SeqNo: 331630		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID:	PBW	Batch ID: R11676			RunNo: 11676						
Prep Date:		Analysis Date: 7/1/2013			SeqNo: 331632		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	1306768-001CMS			SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	OW-30			Batch ID:	R11676		RunNo:	11676			
Prep Date:				Analysis Date:	7/1/2013		SeqNo:	331671		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.028	0.0010	0.02500	0.001879	106	70	130				
Selenium	0.031	0.0010	0.02500	0.005521	103	70	130				

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306768

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID 1306768-001CMS	SampType: MS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: OW-30	Batch ID: R11758		RunNo: 11758							
Prep Date:	Analysis Date: 7/5/2013		SeqNo: 334253		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.19	0.0050	0.1250	0.05357	106	70	130			

Sample ID 1306C15-014AMS	SampType: MS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11758		RunNo: 11758							
Prep Date:	Analysis Date: 7/5/2013		SeqNo: 334274		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.18	0.0050	0.1250	0.04457	105	70	130			

Sample ID 1306C15-014AMSD	SampType: MSD		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: R11758		RunNo: 11758							
Prep Date:	Analysis Date: 7/5/2013		SeqNo: 334275		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.17	0.0050	0.1250	0.04457	104	70	130	0.707	20	

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R11758		RunNo: 11758							
Prep Date:	Analysis Date: 7/5/2013		SeqNo: 334311		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R11758		RunNo: 11758							
Prep Date:	Analysis Date: 7/5/2013		SeqNo: 334312		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: R11758		RunNo: 11758							
Prep Date:	Analysis Date: 7/5/2013		SeqNo: 334315		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	102	85	115			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306768

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11758		RunNo: 11758					
Prep Date:			Analysis Date: 7/5/2013		SeqNo: 334316		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	103	85	115			

Sample ID	1306837-001GMS			SampType: MS		TestCode: EPA 200.8: Dissolved Metals				
Client ID:	BatchQC			Batch ID: R11758		RunNo: 11758				
Prep Date:				Analysis Date: 7/5/2013		SeqNo: 334442		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.031	0.0010	0.02500	0.002320	116	70	130			

Sample ID	1306837-001GMSD			SampType: MSD	TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC			Batch ID: R11758	RunNo: 11758					
Prep Date:				Analysis Date: 7/5/2013	SeqNo: 334443		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.031	0.0010	0.02500	0.002320	117	70	130	0.114	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306768

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	LLLCS-8022	SampType:	LCSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	8022	RunNo:	11454					
Prep Date:	6/20/2013	Analysis Date:	6/20/2013	SeqNo:	323929	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			
Uranium	0.026	0.0010	0.02500	0	103	85	115			

Sample ID	MB-8022	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	8022	RunNo:	11454					
Prep Date:	6/20/2013	Analysis Date:	6/20/2013	SeqNo:	323933	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	1306704-002ALLMS	SampType:	MSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	8022	RunNo:	11602					
Prep Date:	6/20/2013	Analysis Date:	6/27/2013	SeqNo:	328800	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.034	0.0010	0.02500	0.007851	103	70	130			

Sample ID	1306704-002ALLMS	SampType:	MSDLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	8022	RunNo:	11602					
Prep Date:	6/20/2013	Analysis Date:	6/27/2013	SeqNo:	328801	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.035	0.0010	0.02500	0.007851	108	70	130	3.50	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306768

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	MB-8137		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 8137		RunNo: 11612					
Prep Date:	6/27/2013		Analysis Date: 6/27/2013		SeqNo: 329402		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-8137		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 8137		RunNo: 11612					
Prep Date:	6/27/2013		Analysis Date: 6/27/2013		SeqNo: 329403		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	101	80	120			

Sample ID	1306903-001CMS		SampType: MS		TestCode: EPA Method 245.1: Mercury					
Client ID:	BatchQC		Batch ID: 8137		RunNo: 11612					
Prep Date:	6/27/2013		Analysis Date: 6/27/2013		SeqNo: 329408		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	100	75	125			

Sample ID	1306903-001CMSD		SampType: MSD		TestCode: EPA Method 245.1: Mercury					
Client ID:	BatchQC		Batch ID: 8137		RunNo: 11612					
Prep Date:	6/27/2013		Analysis Date: 6/27/2013		SeqNo: 329409		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	101	75	125	0.146	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306768

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R11424			RunNo: 11424					
Prep Date:		Analysis Date: 6/19/2013			SeqNo: 322997		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								
1,1-Dichloropropene	ND	1.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306768

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R11424	RunNo:	11424					
Prep Date:		Analysis Date:	6/19/2013	SeqNo:	322997	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.8	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.0	69.5	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.8		10.00		98.1	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R11424	RunNo:	11424					
Prep Date:		Analysis Date:	6/19/2013	SeqNo:	322999	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	111	70	130			
Toluene	23	1.0	20.00	0	113	80	120			
Chlorobenzene	21	1.0	20.00	0	105	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	105	85.8	133			
Trichloroethene (TCE)	22	1.0	20.00	0	109	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306768

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID 100ng lcs	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES					
Client ID: LCSW	Batch ID: R11424				RunNo: 11424					
Prep Date:	Analysis Date: 6/19/2013				SeqNo: 322999		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.1	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.3	69.5	130			
Surr: Dibromofluoromethane	9.8		10.00		98.0	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID 1306597-005a ms	SampType: MS				TestCode: EPA Method 8260B: VOLATILES					
Client ID: BatchQC	Batch ID: R11424				RunNo: 11424					
Prep Date:	Analysis Date: 6/19/2013				SeqNo: 323008		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	115	70	130			
Toluene	23	1.0	20.00	0	116	68.5	128			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	105	70	130			
Trichloroethene (TCE)	23	1.0	20.00	0	113	61.3	102			S
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.4	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		94.6	69.5	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Sample ID 1306597-005a msd	SampType: MSD				TestCode: EPA Method 8260B: VOLATILES					
Client ID: BatchQC	Batch ID: R11424				RunNo: 11424					
Prep Date:	Analysis Date: 6/19/2013				SeqNo: 323009		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130	4.04	20	
Toluene	22	1.0	20.00	0	112	68.5	128	3.67	20	
Chlorobenzene	21	1.0	20.00	0	104	70	130	0.649	20	
1,1-Dichloroethene	20	1.0	20.00	0	100	70	130	4.47	20	
Trichloroethene (TCE)	20	1.0	20.00	0	101	61.3	102	11.5	20	
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.1		10.00		90.8	69.5	130	0	0	
Surr: Dibromofluoromethane	9.4		10.00		94.3	70	130	0	0	
Surr: Toluene-d8	10		10.00		102	70	130	0	0	

Sample ID rb2	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES					
Client ID: PBW	Batch ID: R11424				RunNo: 11424					
Prep Date:	Analysis Date: 6/19/2013				SeqNo: 325247		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 P Sample pH greater than 2 for VOA and TOC only.
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306768

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	rb2	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R11424	RunNo:	11424					
Prep Date:		Analysis Date:	6/19/2013	SeqNo:	325247	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306768

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID rb2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R11424			RunNo: 11424						
Prep Date:	Analysis Date: 6/19/2013			SeqNo: 325247		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.0	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.1	69.5	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID 100ng lcs ii	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R11424			RunNo: 11424						
Prep Date:	Analysis Date: 6/19/2013			SeqNo: 325258		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	115	70	130			
Toluene	23	1.0	20.00	0	114	80	120			
Chlorobenzene	21	1.0	20.00	0	105	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	107	85.8	133			
Trichloroethene (TCE)	22	1.0	20.00	0	112	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.8	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1306768

09-Jul-13

Client: Western Refining Southwest, Gallup

Project: 2013 2nd QTR

Sample ID	100ng lcs ii	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R11424			RunNo: 11424					
Prep Date:		Analysis Date: 6/19/2013			SeqNo: 325258		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	9.7		10.00		97.0	69.5	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1306768

RcptNo: 1

Received by/date:

AE 06/18/13

Logged By: Lindsay Mangin

6/18/2013 9:55:00 AM

Completed By: Lindsay Mangin

6/18/2013 3:07:52 PM

Reviewed By:

mg 06/18/13

[Signature]
[Signature]

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☒

No ☐

Not Present ☐

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

UPS

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:

2

(<2 or >12 unless noted)

Adjusted?

NO

Checked by:

[Signature]

Special Handling (if applicable)

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

Yes ☐

No ☐

NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

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



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

September 24, 2013

Cheryl Johnson

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

RE: 2013 Annual/Quarterly

OrderNo.: 1309187

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 9 sample(s) on 9/5/2013 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 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GW-1

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 5:15:00 PM

Lab ID: 1309187-001

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	2.3	1.0		mg/L	1	9/6/2013 11:36:51 PM	9202
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/6/2013 11:36:51 PM	9202
Surr: DNOP	88.6	70.1-140		%REC	1	9/6/2013 11:36:51 PM	9202
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	0.49	0.050		mg/L	1	9/9/2013 11:02:29 PM	R13246
Surr: BFB	947	51.5-151	S	%REC	1	9/9/2013 11:02:29 PM	R13246
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	3.1	0.50		mg/L	5	9/6/2013 6:54:54 PM	R13226
Chloride	960	50		mg/L	100	9/13/2013 4:30:52 AM	R13348
Bromide	2.5	0.50		mg/L	5	9/6/2013 6:54:54 PM	R13226
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	9/6/2013 6:54:54 PM	R13226
Sulfate	130	2.5		mg/L	5	9/6/2013 6:54:54 PM	R13226
Nitrate+Nitrite as N	35	1.0	*	mg/L	5	9/7/2013 2:09:10 AM	R13226
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.83	0.0020		mg/L	1	9/12/2013 11:11:14 AM	R13332
Cadmium	ND	0.0020		mg/L	1	9/12/2013 11:11:14 AM	R13332
Calcium	290	5.0		mg/L	5	9/12/2013 11:14:28 AM	R13332
Chromium	ND	0.0060		mg/L	1	9/12/2013 11:11:14 AM	R13332
Copper	ND	0.0060		mg/L	1	9/12/2013 11:11:14 AM	R13332
Iron	13	0.40	*	mg/L	20	9/12/2013 1:47:37 PM	R13332
Magnesium	64	1.0		mg/L	1	9/12/2013 11:11:14 AM	R13332
Manganese	2.7	0.010	*	mg/L	5	9/12/2013 11:14:28 AM	R13332
Potassium	1.6	1.0		mg/L	1	9/12/2013 11:11:14 AM	R13332
Silver	ND	0.0050		mg/L	1	9/12/2013 11:11:14 AM	R13332
Sodium	1100	20		mg/L	20	9/12/2013 1:47:37 PM	R13332
Zinc	0.10	0.010		mg/L	1	9/12/2013 11:11:14 AM	R13332
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.85	0.0020		mg/L	1	9/12/2013 4:23:16 PM	9256
Cadmium	ND	0.0020		mg/L	1	9/12/2013 4:23:16 PM	9256
Chromium	ND	0.0060		mg/L	1	9/12/2013 4:23:16 PM	9256
Copper	ND	0.0060		mg/L	1	9/12/2013 4:23:16 PM	9256
Iron	15	1.0	*	mg/L	50	9/12/2013 5:18:38 PM	9256
Manganese	2.8	0.010	*	mg/L	5	9/12/2013 4:25:18 PM	9256
Silver	ND	0.025		mg/L	5	9/12/2013 4:25:18 PM	9256
Zinc	0.024	0.010		mg/L	1	9/12/2013 4:23:16 PM	9256
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.12	0.0050	*	mg/L	5	9/17/2013 3:07:37 PM	R13428

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GW-1

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 5:15:00 PM

Lab ID: 1309187-001

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	9/17/2013 3:07:37 PM	R13428
Selenium	0.013	0.0050		mg/L	5	9/17/2013 3:07:37 PM	R13428
Uranium	0.011	0.010		mg/L	10	9/19/2013 3:04:14 PM	R13495
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.12	0.0050	*	mg/L	5	9/16/2013 3:07:28 PM	9256
Lead	0.0041	0.0010		mg/L	1	9/16/2013 1:48:23 PM	9256
Selenium	0.010	0.0050		mg/L	5	9/16/2013 3:07:28 PM	9256
Uranium	0.010	0.0010		mg/L	1	9/16/2013 1:48:23 PM	9256
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/17/2013 6:45:30 PM	9344
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Acenaphthylene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Aniline	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Anthracene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Azobenzene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Benz(a)anthracene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Benzo(a)pyrene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Benzo(b)fluoranthene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Benzo(k)fluoranthene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Benzoic acid	ND	40		µg/L	1	9/10/2013 2:05:48 PM	9215
Benzyl alcohol	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Butyl benzyl phthalate	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Carbazole	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
4-Chloroaniline	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
2-Chloronaphthalene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
2-Chlorophenol	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Chrysene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Di-n-butyl phthalate	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Di-n-octyl phthalate	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GW-1

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 5:15:00 PM

Lab ID: 1309187-001

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES					Analyst: DAM		
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Dibenzofuran	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
1,2-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
1,3-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
1,4-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Diethyl phthalate	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Dimethyl phthalate	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
2,4-Dichlorophenol	ND	20		µg/L	1	9/10/2013 2:05:48 PM	9215
2,4-Dimethylphenol	77	10		µg/L	1	9/10/2013 2:05:48 PM	9215
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/10/2013 2:05:48 PM	9215
2,4-Dinitrophenol	ND	20		µg/L	1	9/10/2013 2:05:48 PM	9215
2,4-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
2,6-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Fluoranthene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Fluorene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Hexachlorobenzene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Hexachlorobutadiene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Hexachloroethane	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Isophorone	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
1-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
2-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
2-Methylphenol	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
3+4-Methylphenol	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
N-Nitrosodimethylamine	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Naphthalene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
2-Nitroaniline	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
3-Nitroaniline	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
4-Nitroaniline	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Nitrobenzene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
2-Nitrophenol	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
4-Nitrophenol	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Pentachlorophenol	ND	20		µg/L	1	9/10/2013 2:05:48 PM	9215
Phenanthrene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Phenol	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GW-1

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 5:15:00 PM

Lab ID: 1309187-001

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Pyridine	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/10/2013 2:05:48 PM	9215
Surr: 2,4,6-Tribromophenol	48.5	41.5-117		%REC	1	9/10/2013 2:05:48 PM	9215
Surr: 2-Fluorobiphenyl	57.1	29.1-112		%REC	1	9/10/2013 2:05:48 PM	9215
Surr: 2-Fluorophenol	40.1	11.9-98.6		%REC	1	9/10/2013 2:05:48 PM	9215
Surr: 4-Terphenyl-d14	65.1	46-111		%REC	1	9/10/2013 2:05:48 PM	9215
Surr: Nitrobenzene-d5	55.0	34.9-112		%REC	1	9/10/2013 2:05:48 PM	9215
Surr: Phenol-d5	35.0	17.5-88.3		%REC	1	9/10/2013 2:05:48 PM	9215
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	8.0	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Toluene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Ethylbenzene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Methyl tert-butyl ether (MTBE)	35	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1,2,4-Trimethylbenzene	11	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1,3,5-Trimethylbenzene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1,2-Dichloroethane (EDC)	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1,2-Dibromoethane (EDB)	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Naphthalene	ND	10	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1-Methylnaphthalene	ND	20	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
2-Methylnaphthalene	ND	20	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Acetone	ND	50	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Bromobenzene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Bromodichloromethane	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Bromoform	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Bromomethane	ND	15	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
2-Butanone	ND	50	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Carbon disulfide	ND	50	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Carbon Tetrachloride	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Chlorobenzene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Chloroethane	ND	10	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Chloroform	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Chloromethane	ND	15	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
2-Chlorotoluene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
4-Chlorotoluene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
cis-1,2-DCE	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
cis-1,3-Dichloropropene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GW-1

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 5:15:00 PM

Lab ID: 1309187-001

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromo-3-chloropropane	ND	10	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Dibromochloromethane	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Dibromomethane	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1,2-Dichlorobenzene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1,3-Dichlorobenzene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1,4-Dichlorobenzene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Dichlorodifluoromethane	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1,1-Dichloroethane	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1,1-Dichloroethene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1,2-Dichloropropane	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1,3-Dichloropropane	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
2,2-Dichloropropane	ND	10	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1,1-Dichloropropene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Hexachlorobutadiene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
2-Hexanone	ND	50	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Isopropylbenzene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
4-Isopropyltoluene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
4-Methyl-2-pentanone	ND	50	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Methylene Chloride	ND	15	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
n-Butylbenzene	ND	15	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
n-Propylbenzene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
sec-Butylbenzene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Styrene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
tert-Butylbenzene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1,1,1,2-Tetrachloroethane	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1,1,2,2-Tetrachloroethane	ND	10	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Tetrachloroethene (PCE)	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
trans-1,2-DCE	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
trans-1,3-Dichloropropene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1,2,3-Trichlorobenzene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1,2,4-Trichlorobenzene	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1,1,1-Trichloroethane	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1,1,2-Trichloroethane	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Trichloroethene (TCE)	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Trichlorofluoromethane	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
1,2,3-Trichloropropane	ND	10	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Vinyl chloride	ND	5.0	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Xylenes, Total	16	7.5	P	µg/L	5	9/6/2013 9:18:20 PM	R13167
Surr: 1,2-Dichloroethane-d4	83.1	70-130	P	%REC	5	9/6/2013 9:18:20 PM	R13167

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 5:15:00 PM

Lab ID: 1309187-001

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 4-Bromofluorobenzene	87.4	70-130	P	%REC	5	9/6/2013 9:18:20 PM	R13167
Surr: Dibromofluoromethane	83.2	70-130	P	%REC	5	9/6/2013 9:18:20 PM	R13167
Surr: Toluene-d8	84.8	70-130	P	%REC	5	9/6/2013 9:18:20 PM	R13167

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-2

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 5:36:00 PM

Lab ID: 1309187-002

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/7/2013 12:20:39 AM	9202
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/7/2013 12:20:39 AM	9202
Surr: DNOP	89.7	70.1-140		%REC	1	9/7/2013 12:20:39 AM	9202
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/9/2013 11:31:08 PM	R13246
Surr: BFB	167	51.5-151	S	%REC	1	9/9/2013 11:31:08 PM	R13246
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.84	0.50		mg/L	5	9/6/2013 7:19:42 PM	R13226
Chloride	990	50		mg/L	100	9/13/2013 4:43:18 AM	R13348
Bromide	3.6	0.50		mg/L	5	9/6/2013 7:19:42 PM	R13226
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	9/6/2013 7:19:42 PM	R13226
Sulfate	990	50		mg/L	100	9/13/2013 4:43:18 AM	R13348
Nitrate+Nitrite as N	44	1.0	*	mg/L	5	9/7/2013 2:21:35 AM	R13226
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.036	0.0020		mg/L	1	9/12/2013 11:17:33 AM	R13332
Cadmium	ND	0.0020		mg/L	1	9/12/2013 11:17:33 AM	R13332
Calcium	410	5.0		mg/L	5	9/12/2013 11:33:46 AM	R13332
Chromium	ND	0.0060		mg/L	1	9/12/2013 11:17:33 AM	R13332
Copper	0.014	0.0060		mg/L	1	9/12/2013 11:17:33 AM	R13332
Iron	0.19	0.020		mg/L	1	9/12/2013 11:17:33 AM	R13332
Magnesium	67	1.0		mg/L	1	9/12/2013 11:17:33 AM	R13332
Manganese	1.1	0.010	*	mg/L	5	9/12/2013 11:33:46 AM	R13332
Potassium	1.7	1.0		mg/L	1	9/12/2013 11:17:33 AM	R13332
Silver	ND	0.0050		mg/L	1	9/12/2013 11:17:33 AM	R13332
Sodium	1000	20		mg/L	20	9/12/2013 1:51:14 PM	R13332
Zinc	0.059	0.010		mg/L	1	9/12/2013 11:17:33 AM	R13332
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.059	0.0020		mg/L	1	9/12/2013 4:44:05 PM	9256
Cadmium	ND	0.0020		mg/L	1	9/12/2013 4:44:05 PM	9256
Chromium	ND	0.0060		mg/L	1	9/12/2013 4:44:05 PM	9256
Copper	0.016	0.0060		mg/L	1	9/12/2013 4:44:05 PM	9256
Iron	0.87	0.020	*	mg/L	1	9/12/2013 4:44:05 PM	9256
Manganese	1.1	0.010	*	mg/L	5	9/12/2013 4:46:19 PM	9256
Silver	ND	0.025		mg/L	5	9/12/2013 4:46:19 PM	9256
Zinc	0.026	0.010		mg/L	1	9/12/2013 4:44:05 PM	9256
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0084	0.0050		mg/L	5	9/17/2013 3:10:17 PM	R13428

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Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-2

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 5:36:00 PM

Lab ID: 1309187-002

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	0.0081	0.0050		mg/L	5	9/17/2013 3:10:17 PM	R13428
Selenium	0.018	0.0050		mg/L	5	9/17/2013 3:10:17 PM	R13428
Uranium	0.17	0.010	*	mg/L	10	9/19/2013 3:06:54 PM	R13495
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0076	0.0010		mg/L	1	9/16/2013 1:55:35 PM	9256
Lead	0.0094	0.0010		mg/L	1	9/16/2013 1:55:35 PM	9256
Selenium	0.014	0.010		mg/L	10	9/16/2013 3:14:41 PM	9256
Uranium	0.16	0.010	*	mg/L	10	9/16/2013 3:14:41 PM	9256
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/17/2013 6:47:19 PM	9344
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Acenaphthylene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Aniline	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Anthracene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Azobenzene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Benz(a)anthracene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Benzo(a)pyrene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Benzo(b)fluoranthene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Benzo(k)fluoranthene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Benzoic acid	ND	40		µg/L	1	9/10/2013 2:34:37 PM	9215
Benzyl alcohol	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Butyl benzyl phthalate	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Carbazole	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
4-Chloroaniline	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
2-Chloronaphthalene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
2-Chlorophenol	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Chrysene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Di-n-butyl phthalate	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Di-n-octyl phthalate	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-2

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 5:36:00 PM

Lab ID: 1309187-002

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Dibenzofuran	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
1,2-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
1,3-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
1,4-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Diethyl phthalate	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Dimethyl phthalate	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
2,4-Dichlorophenol	ND	20		µg/L	1	9/10/2013 2:34:37 PM	9215
2,4-Dimethylphenol	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/10/2013 2:34:37 PM	9215
2,4-Dinitrophenol	ND	20		µg/L	1	9/10/2013 2:34:37 PM	9215
2,4-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
2,6-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Fluoranthene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Fluorene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Hexachlorobenzene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Hexachlorobutadiene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Hexachloroethane	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Isophorone	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
1-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
2-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
2-Methylphenol	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
3+4-Methylphenol	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
N-Nitrosodimethylamine	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Naphthalene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
2-Nitroaniline	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
3-Nitroaniline	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
4-Nitroaniline	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Nitrobenzene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
2-Nitrophenol	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
4-Nitrophenol	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Pentachlorophenol	ND	20		µg/L	1	9/10/2013 2:34:37 PM	9215
Phenanthrene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Phenol	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215

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	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-2

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 5:36:00 PM

Lab ID: 1309187-002

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Pyridine	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/10/2013 2:34:37 PM	9215
Surr: 2,4,6-Tribromophenol	51.7	41.5-117		%REC	1	9/10/2013 2:34:37 PM	9215
Surr: 2-Fluorobiphenyl	68.0	29.1-112		%REC	1	9/10/2013 2:34:37 PM	9215
Surr: 2-Fluorophenol	47.8	11.9-98.6		%REC	1	9/10/2013 2:34:37 PM	9215
Surr: 4-Terphenyl-d14	82.8	46-111		%REC	1	9/10/2013 2:34:37 PM	9215
Surr: Nitrobenzene-d5	70.1	34.9-112		%REC	1	9/10/2013 2:34:37 PM	9215
Surr: Phenol-d5	46.4	17.5-88.3		%REC	1	9/10/2013 2:34:37 PM	9215
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Toluene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Ethylbenzene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Methyl tert-butyl ether (MTBE)	2.3	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Naphthalene	ND	2.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1-Methylnaphthalene	ND	4.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
2-Methylnaphthalene	ND	4.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Acetone	ND	10		µg/L	1	9/6/2013 9:50:05 PM	R13167
Bromobenzene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Bromodichloromethane	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Bromoform	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Bromomethane	ND	3.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
2-Butanone	ND	10		µg/L	1	9/6/2013 9:50:05 PM	R13167
Carbon disulfide	ND	10		µg/L	1	9/6/2013 9:50:05 PM	R13167
Carbon Tetrachloride	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Chlorobenzene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Chloroethane	ND	2.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Chloroform	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Chloromethane	ND	3.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
2-Chlorotoluene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
4-Chlorotoluene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
cis-1,2-DCE	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GW-2

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 5:36:00 PM

Lab ID: 1309187-002

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Dibromochloromethane	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Dibromomethane	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1,1-Dichloroethane	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1,1-Dichloroethene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1,2-Dichloropropane	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1,3-Dichloropropane	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
2,2-Dichloropropane	ND	2.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1,1-Dichloropropene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Hexachlorobutadiene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
2-Hexanone	ND	10		µg/L	1	9/6/2013 9:50:05 PM	R13167
Isopropylbenzene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
4-Isopropyltoluene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
4-Methyl-2-pentanone	ND	10		µg/L	1	9/6/2013 9:50:05 PM	R13167
Methylene Chloride	ND	3.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
n-Butylbenzene	ND	3.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
n-Propylbenzene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
sec-Butylbenzene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Styrene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
tert-Butylbenzene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
trans-1,2-DCE	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Trichlorofluoromethane	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Vinyl chloride	ND	1.0		µg/L	1	9/6/2013 9:50:05 PM	R13167
Xylenes, Total	ND	1.5		µg/L	1	9/6/2013 9:50:05 PM	R13167
Surr: 1,2-Dichloroethane-d4	84.7	70-130		%REC	1	9/6/2013 9:50:05 PM	R13167

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	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

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Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

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Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 4-Bromofluorobenzene	86.8	70-130		%REC	1	9/6/2013 9:50:05 PM	R13167
Surr: Dibromofluoromethane	86.7	70-130		%REC	1	9/6/2013 9:50:05 PM	R13167
Surr: Toluene-d8	90.7	70-130		%REC	1	9/6/2013 9:50:05 PM	R13167

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Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 4:15:00 PM

Lab ID: 1309187-003

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	10	1.0		mg/L	1	9/7/2013 12:42:27 AM	9202
Motor Oil Range Organics (MRO)	7.5	5.0		mg/L	1	9/7/2013 12:42:27 AM	9202
Surr: DNOP	91.9	70.1-140		%REC	1	9/7/2013 12:42:27 AM	9202
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	0.73	0.050		mg/L	1	9/9/2013 11:59:44 PM	R13246
Surr: BFB	272	51.5-151	S	%REC	1	9/9/2013 11:59:44 PM	R13246
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.6	0.50		mg/L	5	9/13/2013 4:55:43 AM	R13348
Chloride	1800	100		mg/L	200	9/13/2013 5:08:07 AM	R13348
Bromide	4.2	0.50		mg/L	5	9/13/2013 4:55:43 AM	R13348
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	9/13/2013 4:55:43 AM	R13348
Sulfate	38	2.5		mg/L	5	9/13/2013 4:55:43 AM	R13348
Nitrate+Nitrite as N	ND	1.0		mg/L	5	9/7/2013 2:34:00 AM	R13226
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.55	0.0020		mg/L	1	9/12/2013 11:37:27 AM	R13332
Cadmium	ND	0.0020		mg/L	1	9/12/2013 11:37:27 AM	R13332
Calcium	160	5.0		mg/L	5	9/12/2013 11:40:50 AM	R13332
Chromium	ND	0.0060		mg/L	1	9/12/2013 11:37:27 AM	R13332
Copper	ND	0.0060		mg/L	1	9/12/2013 11:37:27 AM	R13332
Iron	5.2	0.40	*	mg/L	20	9/12/2013 1:54:52 PM	R13332
Magnesium	29	1.0		mg/L	1	9/12/2013 11:37:27 AM	R13332
Manganese	2.0	0.010	*	mg/L	5	9/12/2013 11:40:50 AM	R13332
Potassium	3.9	1.0		mg/L	1	9/12/2013 11:37:27 AM	R13332
Silver	ND	0.0050		mg/L	1	9/12/2013 11:37:27 AM	R13332
Sodium	1300	20		mg/L	20	9/12/2013 1:54:52 PM	R13332
Zinc	0.050	0.010		mg/L	1	9/12/2013 11:37:27 AM	R13332
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.70	0.0020		mg/L	1	9/12/2013 4:48:30 PM	9256
Cadmium	ND	0.0020		mg/L	1	9/12/2013 4:48:30 PM	9256
Chromium	0.012	0.0060		mg/L	1	9/12/2013 4:48:30 PM	9256
Copper	0.015	0.0060		mg/L	1	9/12/2013 4:48:30 PM	9256
Iron	8.5	1.0	*	mg/L	50	9/12/2013 5:23:12 PM	9256
Manganese	2.0	0.010	*	mg/L	5	9/12/2013 4:50:41 PM	9256
Silver	ND	0.025		mg/L	5	9/12/2013 4:50:41 PM	9256
Zinc	0.060	0.010		mg/L	1	9/12/2013 4:48:30 PM	9256
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.012	0.0050	*	mg/L	5	9/17/2013 3:12:56 PM	R13428

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	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 4:15:00 PM

Lab ID: 1309187-003

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	9/17/2013 3:12:56 PM	R13428
Selenium	0.023	0.0050		mg/L	5	9/17/2013 3:12:56 PM	R13428
Uranium	0.047	0.010	*	mg/L	10	9/19/2013 3:09:33 PM	R13495
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.012	0.010	*	mg/L	10	9/16/2013 3:17:04 PM	9256
Lead	0.0091	0.0010		mg/L	1	9/16/2013 1:57:59 PM	9256
Selenium	0.018	0.010		mg/L	10	9/16/2013 3:17:04 PM	9256
Uranium	0.045	0.0010	*	mg/L	1	9/16/2013 1:57:59 PM	9256
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/17/2013 6:49:07 PM	9344
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Acenaphthylene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Aniline	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Anthracene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Azobenzene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Benz(a)anthracene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Benzo(a)pyrene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Benzo(b)fluoranthene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Benzo(k)fluoranthene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Benzoic acid	ND	40		µg/L	1	9/10/2013 3:03:27 PM	9215
Benzyl alcohol	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Butyl benzyl phthalate	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Carbazole	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
4-Chloroaniline	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
2-Chloronaphthalene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
2-Chlorophenol	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Chrysene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Di-n-butyl phthalate	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Di-n-octyl phthalate	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 4:15:00 PM

Lab ID: 1309187-003

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Dibenzofuran	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
1,2-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
1,3-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
1,4-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Diethyl phthalate	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Dimethyl phthalate	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
2,4-Dichlorophenol	ND	20		µg/L	1	9/10/2013 3:03:27 PM	9215
2,4-Dimethylphenol	22	10		µg/L	1	9/10/2013 3:03:27 PM	9215
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/10/2013 3:03:27 PM	9215
2,4-Dinitrophenol	ND	20		µg/L	1	9/10/2013 3:03:27 PM	9215
2,4-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
2,6-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Fluoranthene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Fluorene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Hexachlorobenzene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Hexachlorobutadiene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Hexachloroethane	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Isophorone	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
1-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
2-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
2-Methylphenol	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
3+4-Methylphenol	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
N-Nitrosodimethylamine	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Naphthalene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
2-Nitroaniline	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
3-Nitroaniline	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
4-Nitroaniline	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Nitrobenzene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
2-Nitrophenol	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
4-Nitrophenol	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Pentachlorophenol	ND	20		µg/L	1	9/10/2013 3:03:27 PM	9215
Phenanthrene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Phenol	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215

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

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	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
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	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 Annual/Quarterly

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Lab ID: 1309187-003

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Pyridine	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/10/2013 3:03:27 PM	9215
Surr: 2,4,6-Tribromophenol	88.9	41.5-117		%REC	1	9/10/2013 3:03:27 PM	9215
Surr: 2-Fluorobiphenyl	78.3	29.1-112		%REC	1	9/10/2013 3:03:27 PM	9215
Surr: 2-Fluorophenol	75.7	11.9-98.6		%REC	1	9/10/2013 3:03:27 PM	9215
Surr: 4-Terphenyl-d14	99.0	46-111		%REC	1	9/10/2013 3:03:27 PM	9215
Surr: Nitrobenzene-d5	84.4	34.9-112		%REC	1	9/10/2013 3:03:27 PM	9215
Surr: Phenol-d5	59.9	17.5-88.3		%REC	1	9/10/2013 3:03:27 PM	9215
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	81	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
Toluene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
Ethylbenzene	12	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
Methyl tert-butyl ether (MTBE)	420	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
Naphthalene	ND	10		µg/L	5	9/7/2013 12:28:11 AM	R13167
1-Methylnaphthalene	ND	20		µg/L	5	9/7/2013 12:28:11 AM	R13167
2-Methylnaphthalene	ND	20		µg/L	5	9/7/2013 12:28:11 AM	R13167
Acetone	ND	50		µg/L	5	9/7/2013 12:28:11 AM	R13167
Bromobenzene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
Bromodichloromethane	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
Bromoform	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
Bromomethane	ND	15		µg/L	5	9/7/2013 12:28:11 AM	R13167
2-Butanone	ND	50		µg/L	5	9/7/2013 12:28:11 AM	R13167
Carbon disulfide	ND	50		µg/L	5	9/7/2013 12:28:11 AM	R13167
Carbon Tetrachloride	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
Chlorobenzene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
Chloroethane	ND	10		µg/L	5	9/7/2013 12:28:11 AM	R13167
Chloroform	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
Chloromethane	ND	15		µg/L	5	9/7/2013 12:28:11 AM	R13167
2-Chlorotoluene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
4-Chlorotoluene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
cis-1,2-DCE	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167

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	E Value above quantitation range	H Holding times for preparation or analysis exceeded
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	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

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Lab ID: 1309187-003

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Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	9/7/2013 12:28:11 AM	R13167
Dibromochloromethane	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
Dibromomethane	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
1,2-Dichlorobenzene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
1,3-Dichlorobenzene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
1,4-Dichlorobenzene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
Dichlorodifluoromethane	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
1,1-Dichloroethane	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
1,1-Dichloroethene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
1,2-Dichloropropane	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
1,3-Dichloropropane	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
2,2-Dichloropropane	ND	10		µg/L	5	9/7/2013 12:28:11 AM	R13167
1,1-Dichloropropene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
Hexachlorobutadiene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
2-Hexanone	ND	50		µg/L	5	9/7/2013 12:28:11 AM	R13167
Isopropylbenzene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
4-Isopropyltoluene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
4-Methyl-2-pentanone	ND	50		µg/L	5	9/7/2013 12:28:11 AM	R13167
Methylene Chloride	ND	15		µg/L	5	9/7/2013 12:28:11 AM	R13167
n-Butylbenzene	ND	15		µg/L	5	9/7/2013 12:28:11 AM	R13167
n-Propylbenzene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
sec-Butylbenzene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
Styrene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
tert-Butylbenzene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	9/7/2013 12:28:11 AM	R13167
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
trans-1,2-DCE	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
1,1,1-Trichloroethane	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
1,1,2-Trichloroethane	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
Trichloroethene (TCE)	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
Trichlorofluoromethane	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
1,2,3-Trichloropropane	ND	10		µg/L	5	9/7/2013 12:28:11 AM	R13167
Vinyl chloride	ND	5.0		µg/L	5	9/7/2013 12:28:11 AM	R13167
Xylenes, Total	ND	7.5		µg/L	5	9/7/2013 12:28:11 AM	R13167
Surr: 1,2-Dichloroethane-d4	85.9	70-130		%REC	5	9/7/2013 12:28:11 AM	R13167

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 4:15:00 PM

Lab ID: 1309187-003

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 4-Bromofluorobenzene	87.4	70-130		%REC	5	9/7/2013 12:28:11 AM	R13167
Surr: Dibromofluoromethane	87.5	70-130		%REC	5	9/7/2013 12:28:11 AM	R13167
Surr: Toluene-d8	89.7	70-130		%REC	5	9/7/2013 12:28:11 AM	R13167

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 2:15:00 PM

Lab ID: 1309187-004

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/7/2013 1:04:27 AM	9202
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/7/2013 1:04:27 AM	9202
Surr: DNOP	91.7	70.1-140		%REC	1	9/7/2013 1:04:27 AM	9202
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/10/2013 12:56:53 AM	R13246
Surr: BFB	92.6	51.5-151		%REC	1	9/10/2013 12:56:53 AM	R13246
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.53	0.10		mg/L	1	9/13/2013 5:20:32 AM	R13348
Chloride	110	10		mg/L	20	9/13/2013 5:32:56 AM	R13348
Bromide	0.40	0.10		mg/L	1	9/13/2013 5:20:32 AM	R13348
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/13/2013 5:20:32 AM	R13348
Sulfate	69	10		mg/L	20	9/13/2013 5:32:56 AM	R13348
Nitrate+Nitrite as N	34	1.0	*	mg/L	5	9/7/2013 2:46:24 AM	R13226
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.15	0.010		mg/L	5	9/12/2013 11:48:14 AM	R13332
Cadmium	ND	0.010		mg/L	5	9/12/2013 11:48:14 AM	R13332
Calcium	87	5.0		mg/L	5	9/12/2013 11:48:14 AM	R13332
Chromium	ND	0.030		mg/L	5	9/12/2013 11:48:14 AM	R13332
Copper	ND	0.030		mg/L	5	9/12/2013 11:48:14 AM	R13332
Iron	ND	0.10		mg/L	5	9/12/2013 11:48:14 AM	R13332
Magnesium	15	5.0		mg/L	5	9/12/2013 11:48:14 AM	R13332
Manganese	0.064	0.010	*	mg/L	5	9/12/2013 11:48:14 AM	R13332
Potassium	ND	5.0		mg/L	5	9/12/2013 11:48:14 AM	R13332
Silver	ND	0.025		mg/L	5	9/12/2013 11:48:14 AM	R13332
Sodium	340	5.0		mg/L	5	9/12/2013 11:48:14 AM	R13332
Zinc	ND	0.050		mg/L	5	9/12/2013 11:48:14 AM	R13332
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.17	0.0020		mg/L	1	9/12/2013 4:52:48 PM	9256
Cadmium	ND	0.0020		mg/L	1	9/12/2013 4:52:48 PM	9256
Chromium	ND	0.0060		mg/L	1	9/12/2013 4:52:48 PM	9256
Copper	ND	0.0060		mg/L	1	9/12/2013 4:52:48 PM	9256
Iron	0.57	0.10	*	mg/L	5	9/12/2013 4:54:58 PM	9256
Manganese	0.089	0.0020	*	mg/L	1	9/12/2013 4:52:48 PM	9256
Silver	ND	0.025		mg/L	5	9/12/2013 4:54:58 PM	9256
Zinc	ND	0.010		mg/L	1	9/12/2013 4:52:48 PM	9256
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/17/2013 3:15:35 PM	R13428

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 2:15:00 PM

Lab ID: 1309187-004

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	9/17/2013 3:15:35 PM	R13428
Selenium	0.0085	0.0050		mg/L	5	9/17/2013 3:15:35 PM	R13428
Uranium	ND	0.010		mg/L	10	9/19/2013 3:12:13 PM	R13495
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0026	0.0010		mg/L	1	9/16/2013 2:00:23 PM	9256
Lead	ND	0.0010		mg/L	1	9/16/2013 2:00:23 PM	9256
Selenium	0.0073	0.0010		mg/L	1	9/16/2013 2:00:23 PM	9256
Uranium	0.0099	0.0010		mg/L	1	9/16/2013 2:00:23 PM	9256
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/17/2013 6:50:56 PM	9344
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Acenaphthylene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Aniline	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Anthracene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Azobenzene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Benz(a)anthracene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Benzo(a)pyrene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Benzo(b)fluoranthene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Benzo(k)fluoranthene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Benzoic acid	ND	40		µg/L	1	9/10/2013 3:32:13 PM	9215
Benzyl alcohol	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Butyl benzyl phthalate	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Carbazole	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
4-Chloroaniline	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
2-Chloronaphthalene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
2-Chlorophenol	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Chrysene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Di-n-butyl phthalate	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Di-n-octyl phthalate	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215

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	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 2:15:00 PM

Lab ID: 1309187-004

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Dibenzofuran	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
1,2-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
1,3-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
1,4-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Diethyl phthalate	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Dimethyl phthalate	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
2,4-Dichlorophenol	ND	20		µg/L	1	9/10/2013 3:32:13 PM	9215
2,4-Dimethylphenol	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/10/2013 3:32:13 PM	9215
2,4-Dinitrophenol	ND	20		µg/L	1	9/10/2013 3:32:13 PM	9215
2,4-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
2,6-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Fluoranthene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Fluorene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Hexachlorobenzene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Hexachlorobutadiene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Hexachloroethane	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Isophorone	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
1-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
2-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
2-Methylphenol	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
3+4-Methylphenol	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
N-Nitrosodimethylamine	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Naphthalene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
2-Nitroaniline	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
3-Nitroaniline	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
4-Nitroaniline	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Nitrobenzene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
2-Nitrophenol	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
4-Nitrophenol	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Pentachlorophenol	ND	20		µg/L	1	9/10/2013 3:32:13 PM	9215
Phenanthrene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Phenol	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 2:15:00 PM

Lab ID: 1309187-004

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Pyridine	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/10/2013 3:32:13 PM	9215
Surr: 2,4,6-Tribromophenol	71.8	41.5-117		%REC	1	9/10/2013 3:32:13 PM	9215
Surr: 2-Fluorobiphenyl	72.3	29.1-112		%REC	1	9/10/2013 3:32:13 PM	9215
Surr: 2-Fluorophenol	64.1	11.9-98.6		%REC	1	9/10/2013 3:32:13 PM	9215
Surr: 4-Terphenyl-d14	74.3	46-111		%REC	1	9/10/2013 3:32:13 PM	9215
Surr: Nitrobenzene-d5	84.1	34.9-112		%REC	1	9/10/2013 3:32:13 PM	9215
Surr: Phenol-d5	48.5	17.5-88.3		%REC	1	9/10/2013 3:32:13 PM	9215
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Toluene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Ethylbenzene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Naphthalene	ND	2.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1-Methylnaphthalene	ND	4.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
2-Methylnaphthalene	ND	4.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Acetone	ND	10		µg/L	1	9/7/2013 1:31:26 AM	R13167
Bromobenzene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Bromodichloromethane	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Bromoform	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Bromomethane	ND	3.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
2-Butanone	ND	10		µg/L	1	9/7/2013 1:31:26 AM	R13167
Carbon disulfide	ND	10		µg/L	1	9/7/2013 1:31:26 AM	R13167
Carbon Tetrachloride	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Chlorobenzene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Chloroethane	ND	2.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Chloroform	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Chloromethane	ND	3.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
2-Chlorotoluene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
4-Chlorotoluene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
cis-1,2-DCE	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 2:15:00 PM

Lab ID: 1309187-004

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Dibromochloromethane	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Dibromomethane	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1,1-Dichloroethane	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1,1-Dichloroethene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1,2-Dichloropropane	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1,3-Dichloropropane	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
2,2-Dichloropropane	ND	2.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1,1-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Hexachlorobutadiene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
2-Hexanone	ND	10		µg/L	1	9/7/2013 1:31:26 AM	R13167
Isopropylbenzene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
4-Isopropyltoluene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
4-Methyl-2-pentanone	ND	10		µg/L	1	9/7/2013 1:31:26 AM	R13167
Methylene Chloride	ND	3.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
n-Butylbenzene	ND	3.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
n-Propylbenzene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
sec-Butylbenzene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Styrene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
tert-Butylbenzene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
trans-1,2-DCE	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Trichlorofluoromethane	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Vinyl chloride	ND	1.0		µg/L	1	9/7/2013 1:31:26 AM	R13167
Xylenes, Total	ND	1.5		µg/L	1	9/7/2013 1:31:26 AM	R13167
Surr: 1,2-Dichloroethane-d4	88.6	70-130		%REC	1	9/7/2013 1:31:26 AM	R13167

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 2:15:00 PM

Lab ID: 1309187-004

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 4-Bromofluorobenzene	85.5	70-130		%REC	1	9/7/2013 1:31:26 AM	R13167
Surr: Dibromofluoromethane	86.5	70-130		%REC	1	9/7/2013 1:31:26 AM	R13167
Surr: Toluene-d8	88.3	70-130		%REC	1	9/7/2013 1:31:26 AM	R13167

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 2:55:00 PM

Lab ID: 1309187-005

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/7/2013 1:26:14 AM	9202
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/7/2013 1:26:14 AM	9202
Surr: DNOP	91.9	70.1-140		%REC	1	9/7/2013 1:26:14 AM	9202
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	0.47	0.050		mg/L	1	9/10/2013 1:25:23 AM	R13246
Surr: BFB	162	51.5-151	S	%REC	1	9/10/2013 1:25:23 AM	R13246
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.8	0.10		mg/L	1	9/13/2013 5:45:22 AM	R13348
Chloride	290	10		mg/L	20	9/13/2013 5:57:46 AM	R13348
Bromide	0.37	0.10		mg/L	1	9/13/2013 5:45:22 AM	R13348
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/13/2013 5:45:22 AM	R13348
Sulfate	7.8	0.50		mg/L	1	9/13/2013 5:45:22 AM	R13348
Nitrate+Nitrite as N	5.2	1.0		mg/L	5	9/7/2013 3:36:01 AM	R13226
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	1.7	0.010		mg/L	5	9/12/2013 11:55:03 AM	R13332
Cadmium	ND	0.0020		mg/L	1	9/12/2013 11:51:51 AM	R13332
Calcium	90	1.0		mg/L	1	9/12/2013 11:51:51 AM	R13332
Chromium	ND	0.0060		mg/L	1	9/12/2013 11:51:51 AM	R13332
Copper	ND	0.0060		mg/L	1	9/12/2013 11:51:51 AM	R13332
Iron	2.6	0.10	*	mg/L	5	9/12/2013 11:55:03 AM	R13332
Magnesium	17	1.0		mg/L	1	9/12/2013 11:51:51 AM	R13332
Manganese	1.3	0.010	*	mg/L	5	9/12/2013 11:55:03 AM	R13332
Potassium	ND	1.0		mg/L	1	9/12/2013 11:51:51 AM	R13332
Silver	ND	0.0050		mg/L	1	9/12/2013 11:51:51 AM	R13332
Sodium	350	5.0		mg/L	5	9/12/2013 11:55:03 AM	R13332
Zinc	0.021	0.010		mg/L	1	9/12/2013 11:51:51 AM	R13332
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	2.0	0.010	*	mg/L	5	9/12/2013 4:59:08 PM	9256
Cadmium	ND	0.0020		mg/L	1	9/12/2013 4:57:06 PM	9256
Chromium	ND	0.0060		mg/L	1	9/12/2013 4:57:06 PM	9256
Copper	ND	0.0060		mg/L	1	9/12/2013 4:57:06 PM	9256
Iron	3.9	0.10	*	mg/L	5	9/12/2013 4:59:08 PM	9256
Manganese	1.4	0.010	*	mg/L	5	9/12/2013 4:59:08 PM	9256
Silver	ND	0.025		mg/L	5	9/12/2013 4:59:08 PM	9256
Zinc	0.012	0.010		mg/L	1	9/12/2013 4:57:06 PM	9256
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0069	0.0050		mg/L	5	9/17/2013 3:18:15 PM	R13428

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 2:55:00 PM

Lab ID: 1309187-005

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	9/17/2013 3:18:15 PM	R13428
Selenium	0.0060	0.0050		mg/L	5	9/17/2013 3:18:15 PM	R13428
Uranium	ND	0.010		mg/L	10	9/19/2013 3:14:52 PM	R13495
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0063	0.0010		mg/L	1	9/16/2013 2:02:51 PM	9256
Lead	0.0014	0.0010		mg/L	1	9/16/2013 2:02:51 PM	9256
Selenium	0.0045	0.0010		mg/L	1	9/16/2013 2:02:51 PM	9256
Uranium	ND	0.0010		mg/L	1	9/16/2013 2:02:51 PM	9256
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/17/2013 6:52:45 PM	9344
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Acenaphthylene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Aniline	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Anthracene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Azobenzene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Benz(a)anthracene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Benzo(a)pyrene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Benzo(b)fluoranthene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Benzo(k)fluoranthene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Benzoic acid	ND	40		µg/L	1	9/10/2013 4:01:04 PM	9215
Benzyl alcohol	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Butyl benzyl phthalate	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Carbazole	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
4-Chloroaniline	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
2-Chloronaphthalene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
2-Chlorophenol	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Chrysene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Di-n-butyl phthalate	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Di-n-octyl phthalate	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 2:55:00 PM

Lab ID: 1309187-005

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Dibenzofuran	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
1,2-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
1,3-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
1,4-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Diethyl phthalate	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Dimethyl phthalate	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
2,4-Dichlorophenol	ND	20		µg/L	1	9/10/2013 4:01:04 PM	9215
2,4-Dimethylphenol	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/10/2013 4:01:04 PM	9215
2,4-Dinitrophenol	ND	20		µg/L	1	9/10/2013 4:01:04 PM	9215
2,4-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
2,6-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Fluoranthene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Fluorene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Hexachlorobenzene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Hexachlorobutadiene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Hexachloroethane	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Isophorone	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
1-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
2-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
2-Methylphenol	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
3+4-Methylphenol	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
N-Nitrosodimethylamine	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Naphthalene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
2-Nitroaniline	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
3-Nitroaniline	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
4-Nitroaniline	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Nitrobenzene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
2-Nitrophenol	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
4-Nitrophenol	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Pentachlorophenol	ND	20		µg/L	1	9/10/2013 4:01:04 PM	9215
Phenanthrene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Phenol	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 2:55:00 PM

Lab ID: 1309187-005

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Pyridine	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/10/2013 4:01:04 PM	9215
Surr: 2,4,6-Tribromophenol	70.8	41.5-117		%REC	1	9/10/2013 4:01:04 PM	9215
Surr: 2-Fluorobiphenyl	56.2	29.1-112		%REC	1	9/10/2013 4:01:04 PM	9215
Surr: 2-Fluorophenol	39.0	11.9-98.6		%REC	1	9/10/2013 4:01:04 PM	9215
Surr: 4-Terphenyl-d14	67.6	46-111		%REC	1	9/10/2013 4:01:04 PM	9215
Surr: Nitrobenzene-d5	49.3	34.9-112		%REC	1	9/10/2013 4:01:04 PM	9215
Surr: Phenol-d5	35.4	17.5-88.3		%REC	1	9/10/2013 4:01:04 PM	9215
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	18	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Toluene	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Ethylbenzene	13	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Methyl tert-butyl ether (MTBE)	240	10		µg/L	10	9/9/2013 2:02:36 PM	R13243
1,2,4-Trimethylbenzene	1.7	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Naphthalene	4.8	2.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
1-Methylnaphthalene	9.4	4.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
2-Methylnaphthalene	ND	4.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Acetone	ND	10		µg/L	1	9/7/2013 2:03:02 AM	R13167
Bromobenzene	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Bromodichloromethane	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Bromoform	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Bromomethane	ND	3.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
2-Butanone	ND	10		µg/L	1	9/7/2013 2:03:02 AM	R13167
Carbon disulfide	ND	10		µg/L	1	9/7/2013 2:03:02 AM	R13167
Carbon Tetrachloride	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Chlorobenzene	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Chloroethane	ND	2.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Chloroform	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Chloromethane	ND	3.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
2-Chlorotoluene	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
4-Chlorotoluene	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
cis-1,2-DCE	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 2:55:00 PM

Lab ID: 1309187-005

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Dibromochloromethane	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Dibromomethane	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
1,1-Dichloroethane	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
1,1-Dichloroethene	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
1,2-Dichloropropane	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
1,3-Dichloropropane	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
2,2-Dichloropropane	ND	2.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
1,1-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Hexachlorobutadiene	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
2-Hexanone	ND	10		µg/L	1	9/7/2013 2:03:02 AM	R13167
Isopropylbenzene	2.8	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
4-Isopropyltoluene	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
4-Methyl-2-pentanone	ND	10		µg/L	1	9/7/2013 2:03:02 AM	R13167
Methylene Chloride	ND	3.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
n-Butylbenzene	ND	3.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
n-Propylbenzene	2.2	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
sec-Butylbenzene	1.5	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Styrene	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
tert-Butylbenzene	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
trans-1,2-DCE	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Trichlorofluoromethane	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Vinyl chloride	ND	1.0		µg/L	1	9/7/2013 2:03:02 AM	R13167
Xylenes, Total	1.6	1.5		µg/L	1	9/7/2013 2:03:02 AM	R13167
Surr: 1,2-Dichloroethane-d4	86.5	70-130		%REC	1	9/7/2013 2:03:02 AM	R13167

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 2:55:00 PM

Lab ID: 1309187-005

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 4-Bromofluorobenzene	86.9	70-130		%REC	1	9/7/2013 2:03:02 AM	R13167
Surr: Dibromofluoromethane	86.8	70-130		%REC	1	9/7/2013 2:03:02 AM	R13167
Surr: Toluene-d8	86.6	70-130		%REC	1	9/7/2013 2:03:02 AM	R13167

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 3:30:00 PM

Lab ID: 1309187-006

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/7/2013 1:48:13 AM	9202
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/7/2013 1:48:13 AM	9202
Surr: DNOP	91.3	70.1-140		%REC	1	9/7/2013 1:48:13 AM	9202
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/10/2013 1:53:56 AM	R13246
Surr: BFB	113	51.5-151		%REC	1	9/10/2013 1:53:56 AM	R13246
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.1	0.10		mg/L	1	9/13/2013 3:21:35 AM	R13346
Chloride	170	10		mg/L	20	9/13/2013 3:34:00 AM	R13346
Bromide	1.0	0.10		mg/L	1	9/13/2013 3:21:35 AM	R13346
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/13/2013 3:21:35 AM	R13346
Sulfate	39	0.50		mg/L	1	9/17/2013 5:02:17 AM	R13414
Nitrate+Nitrite as N	20	1.0	*	mg/L	5	9/7/2013 3:48:26 AM	R13226
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.15	0.0020		mg/L	1	9/12/2013 11:58:42 AM	R13332
Cadmium	ND	0.0020		mg/L	1	9/12/2013 11:58:42 AM	R13332
Calcium	75	1.0		mg/L	1	9/12/2013 11:58:42 AM	R13332
Chromium	ND	0.0060		mg/L	1	9/12/2013 11:58:42 AM	R13332
Copper	ND	0.0060		mg/L	1	9/12/2013 11:58:42 AM	R13332
Iron	ND	0.020		mg/L	1	9/12/2013 11:58:42 AM	R13332
Magnesium	12	1.0		mg/L	1	9/12/2013 11:58:42 AM	R13332
Manganese	0.37	0.0020	*	mg/L	1	9/12/2013 11:58:42 AM	R13332
Potassium	ND	1.0		mg/L	1	9/12/2013 11:58:42 AM	R13332
Silver	ND	0.0050		mg/L	1	9/12/2013 11:58:42 AM	R13332
Sodium	300	5.0		mg/L	5	9/12/2013 12:02:21 PM	R13332
Zinc	0.030	0.010		mg/L	1	9/12/2013 11:58:42 AM	R13332
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.17	0.0020		mg/L	1	9/12/2013 5:01:06 PM	9256
Cadmium	ND	0.0020		mg/L	1	9/12/2013 5:01:06 PM	9256
Chromium	ND	0.0060		mg/L	1	9/12/2013 5:01:06 PM	9256
Copper	ND	0.0060		mg/L	1	9/12/2013 5:01:06 PM	9256
Iron	0.33	0.020	*	mg/L	1	9/12/2013 5:01:06 PM	9256
Manganese	0.42	0.0020	*	mg/L	1	9/12/2013 5:01:06 PM	9256
Silver	ND	0.0050		mg/L	1	9/12/2013 5:01:06 PM	9256
Zinc	0.013	0.010		mg/L	1	9/12/2013 5:01:06 PM	9256
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/17/2013 3:20:54 PM	R13428

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 3:30:00 PM

Lab ID: 1309187-006

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	9/17/2013 3:20:54 PM	R13428
Selenium	0.0056	0.0050		mg/L	5	9/17/2013 3:20:54 PM	R13428
Uranium	0.011	0.010		mg/L	10	9/19/2013 3:17:31 PM	R13495
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0022	0.0010		mg/L	1	9/16/2013 2:05:15 PM	9256
Lead	ND	0.0010		mg/L	1	9/16/2013 2:05:15 PM	9256
Selenium	0.0034	0.0010		mg/L	1	9/16/2013 2:05:15 PM	9256
Uranium	0.013	0.0010		mg/L	1	9/16/2013 2:05:15 PM	9256
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/19/2013 4:17:38 PM	9366
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Acenaphthylene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Aniline	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Anthracene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Azobenzene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Benz(a)anthracene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Benzo(a)pyrene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Benzo(b)fluoranthene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Benzo(k)fluoranthene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Benzoic acid	ND	40		µg/L	1	9/10/2013 4:29:46 PM	9215
Benzyl alcohol	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Butyl benzyl phthalate	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Carbazole	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
4-Chloroaniline	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
2-Chloronaphthalene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
2-Chlorophenol	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Chrysene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Di-n-butyl phthalate	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Di-n-octyl phthalate	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 3:30:00 PM

Lab ID: 1309187-006

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Dibenzofuran	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
1,2-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
1,3-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
1,4-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Diethyl phthalate	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Dimethyl phthalate	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
2,4-Dichlorophenol	ND	20		µg/L	1	9/10/2013 4:29:46 PM	9215
2,4-Dimethylphenol	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/10/2013 4:29:46 PM	9215
2,4-Dinitrophenol	ND	20		µg/L	1	9/10/2013 4:29:46 PM	9215
2,4-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
2,6-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Fluoranthene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Fluorene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Hexachlorobenzene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Hexachlorobutadiene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Hexachloroethane	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Isophorone	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
1-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
2-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
2-Methylphenol	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
3+4-Methylphenol	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
N-Nitrosodimethylamine	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Naphthalene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
2-Nitroaniline	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
3-Nitroaniline	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
4-Nitroaniline	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Nitrobenzene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
2-Nitrophenol	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
4-Nitrophenol	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Pentachlorophenol	ND	20		µg/L	1	9/10/2013 4:29:46 PM	9215
Phenanthrene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Phenol	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 3:30:00 PM

Lab ID: 1309187-006

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Pyridine	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/10/2013 4:29:46 PM	9215
Surr: 2,4,6-Tribromophenol	103	41.5-117		%REC	1	9/10/2013 4:29:46 PM	9215
Surr: 2-Fluorobiphenyl	96.5	29.1-112		%REC	1	9/10/2013 4:29:46 PM	9215
Surr: 2-Fluorophenol	76.6	11.9-98.6		%REC	1	9/10/2013 4:29:46 PM	9215
Surr: 4-Terphenyl-d14	110	46-111		%REC	1	9/10/2013 4:29:46 PM	9215
Surr: Nitrobenzene-d5	91.1	34.9-112		%REC	1	9/10/2013 4:29:46 PM	9215
Surr: Phenol-d5	66.6	17.5-88.3		%REC	1	9/10/2013 4:29:46 PM	9215
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	3.4	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Toluene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Ethylbenzene	1.4	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Methyl tert-butyl ether (MTBE)	20	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Naphthalene	ND	2.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1-Methylnaphthalene	ND	4.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
2-Methylnaphthalene	ND	4.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Acetone	ND	10		µg/L	1	9/7/2013 3:06:23 AM	R13167
Bromobenzene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Bromodichloromethane	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Bromoform	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Bromomethane	ND	3.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
2-Butanone	ND	10		µg/L	1	9/7/2013 3:06:23 AM	R13167
Carbon disulfide	ND	10		µg/L	1	9/7/2013 3:06:23 AM	R13167
Carbon Tetrachloride	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Chlorobenzene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Chloroethane	ND	2.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Chloroform	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Chloromethane	ND	3.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
2-Chlorotoluene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
4-Chlorotoluene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
cis-1,2-DCE	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 3:30:00 PM

Lab ID: 1309187-006

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Dibromochloromethane	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Dibromomethane	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1,1-Dichloroethane	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1,1-Dichloroethene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1,2-Dichloropropane	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1,3-Dichloropropane	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
2,2-Dichloropropane	ND	2.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1,1-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Hexachlorobutadiene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
2-Hexanone	ND	10		µg/L	1	9/7/2013 3:06:23 AM	R13167
Isopropylbenzene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
4-Isopropyltoluene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
4-Methyl-2-pentanone	ND	10		µg/L	1	9/7/2013 3:06:23 AM	R13167
Methylene Chloride	ND	3.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
n-Butylbenzene	ND	3.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
n-Propylbenzene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
sec-Butylbenzene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Styrene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
tert-Butylbenzene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
trans-1,2-DCE	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Trichlorofluoromethane	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Vinyl chloride	ND	1.0		µg/L	1	9/7/2013 3:06:23 AM	R13167
Xylenes, Total	ND	1.5		µg/L	1	9/7/2013 3:06:23 AM	R13167
Surr: 1,2-Dichloroethane-d4	88.8	70-130		%REC	1	9/7/2013 3:06:23 AM	R13167

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 3:30:00 PM

Lab ID: 1309187-006

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 4-Bromofluorobenzene	88.2	70-130		%REC	1	9/7/2013 3:06:23 AM	R13167
Surr: Dibromofluoromethane	91.5	70-130		%REC	1	9/7/2013 3:06:23 AM	R13167
Surr: Toluene-d8	89.0	70-130		%REC	1	9/7/2013 3:06:23 AM	R13167

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Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 3:45:00 PM

Lab ID: 1309187-007

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/7/2013 2:10:04 AM	9202
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/7/2013 2:10:04 AM	9202
Surr: DNOP	90.1	70.1-140		%REC	1	9/7/2013 2:10:04 AM	9202
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/10/2013 2:22:32 AM	R13246
Surr: BFB	89.6	51.5-151		%REC	1	9/10/2013 2:22:32 AM	R13246
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.27	0.10		mg/L	1	9/13/2013 4:11:14 AM	R13346
Chloride	980	100		mg/L	200	9/13/2013 4:36:04 AM	R13346
Bromide	5.0	0.10		mg/L	1	9/13/2013 4:11:14 AM	R13346
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/13/2013 4:11:14 AM	R13346
Sulfate	410	10		mg/L	20	9/17/2013 5:14:42 AM	R13414
Nitrate+Nitrite as N	20	1.0	*	mg/L	5	9/7/2013 4:00:51 AM	R13226
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.058	0.0020		mg/L	1	9/12/2013 12:05:56 PM	R13332
Cadmium	ND	0.0020		mg/L	1	9/12/2013 12:05:56 PM	R13332
Calcium	43	1.0		mg/L	1	9/12/2013 12:05:56 PM	R13332
Chromium	ND	0.0060		mg/L	1	9/12/2013 12:05:56 PM	R13332
Copper	ND	0.0060		mg/L	1	9/12/2013 12:05:56 PM	R13332
Iron	0.17	0.020		mg/L	1	9/12/2013 12:05:56 PM	R13332
Magnesium	6.8	1.0		mg/L	1	9/12/2013 12:05:56 PM	R13332
Manganese	0.0075	0.0020		mg/L	1	9/12/2013 12:05:56 PM	R13332
Potassium	2.9	1.0		mg/L	1	9/12/2013 12:05:56 PM	R13332
Silver	ND	0.0050		mg/L	1	9/12/2013 12:05:56 PM	R13332
Sodium	950	20		mg/L	20	9/12/2013 2:09:11 PM	R13332
Zinc	0.028	0.010		mg/L	1	9/12/2013 12:05:56 PM	R13332
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.19	0.0020		mg/L	1	9/12/2013 5:12:03 PM	9256
Cadmium	ND	0.0020		mg/L	1	9/12/2013 5:12:03 PM	9256
Chromium	0.0090	0.0060		mg/L	1	9/12/2013 5:12:03 PM	9256
Copper	0.0061	0.0060		mg/L	1	9/12/2013 5:12:03 PM	9256
Iron	3.4	0.10	*	mg/L	5	9/12/2013 5:14:13 PM	9256
Manganese	0.16	0.0020	*	mg/L	1	9/12/2013 5:12:03 PM	9256
Silver	ND	0.0050		mg/L	1	9/12/2013 5:12:03 PM	9256
Zinc	0.043	0.010		mg/L	1	9/12/2013 5:12:03 PM	9256
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0063	0.0010		mg/L	1	9/19/2013 3:30:53 PM	R13495

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 3:45:00 PM

Lab ID: 1309187-007

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0010		mg/L	1	9/19/2013 3:30:53 PM	R13495
Selenium	0.023	0.010		mg/L	10	9/19/2013 3:28:13 PM	R13495
Uranium	0.041	0.0010	*	mg/L	1	9/19/2013 3:30:53 PM	R13495
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0052	0.0010		mg/L	1	9/16/2013 2:10:02 PM	9256
Lead	0.0039	0.0010		mg/L	1	9/16/2013 2:10:02 PM	9256
Selenium	0.019	0.0010		mg/L	1	9/16/2013 2:10:02 PM	9256
Uranium	0.038	0.0010	*	mg/L	1	9/16/2013 2:10:02 PM	9256
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/19/2013 4:19:24 PM	9366
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Acenaphthylene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Aniline	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Anthracene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Azobenzene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Benz(a)anthracene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Benzo(a)pyrene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Benzo(b)fluoranthene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Benzo(k)fluoranthene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Benzoic acid	ND	40		µg/L	1	9/10/2013 4:58:31 PM	9215
Benzyl alcohol	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Butyl benzyl phthalate	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Carbazole	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
4-Chloroaniline	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
2-Chloronaphthalene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
2-Chlorophenol	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Chrysene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Di-n-butyl phthalate	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Di-n-octyl phthalate	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 3:45:00 PM

Lab ID: 1309187-007

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Dibenzofuran	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
1,2-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
1,3-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
1,4-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Diethyl phthalate	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Dimethyl phthalate	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
2,4-Dichlorophenol	ND	20		µg/L	1	9/10/2013 4:58:31 PM	9215
2,4-Dimethylphenol	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/10/2013 4:58:31 PM	9215
2,4-Dinitrophenol	ND	20		µg/L	1	9/10/2013 4:58:31 PM	9215
2,4-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
2,6-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Fluoranthene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Fluorene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Hexachlorobenzene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Hexachlorobutadiene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Hexachloroethane	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Isophorone	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
1-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
2-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
2-Methylphenol	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
3+4-Methylphenol	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
N-Nitrosodimethylamine	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Naphthalene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
2-Nitroaniline	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
3-Nitroaniline	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
4-Nitroaniline	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Nitrobenzene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
2-Nitrophenol	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
4-Nitrophenol	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Pentachlorophenol	ND	20		µg/L	1	9/10/2013 4:58:31 PM	9215
Phenanthrene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Phenol	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
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	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2013 Annual/Quarterly

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Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Pyridine	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/10/2013 4:58:31 PM	9215
Surr: 2,4,6-Tribromophenol	71.8	41.5-117		%REC	1	9/10/2013 4:58:31 PM	9215
Surr: 2-Fluorobiphenyl	74.1	29.1-112		%REC	1	9/10/2013 4:58:31 PM	9215
Surr: 2-Fluorophenol	63.2	11.9-98.6		%REC	1	9/10/2013 4:58:31 PM	9215
Surr: 4-Terphenyl-d14	75.0	46-111		%REC	1	9/10/2013 4:58:31 PM	9215
Surr: Nitrobenzene-d5	82.8	34.9-112		%REC	1	9/10/2013 4:58:31 PM	9215
Surr: Phenol-d5	48.5	17.5-88.3		%REC	1	9/10/2013 4:58:31 PM	9215
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Toluene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Ethylbenzene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Methyl tert-butyl ether (MTBE)	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1,2,4-Trimethylbenzene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1,3,5-Trimethylbenzene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1,2-Dichloroethane (EDC)	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1,2-Dibromoethane (EDB)	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Naphthalene	ND	2.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1-Methylnaphthalene	ND	4.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
2-Methylnaphthalene	ND	4.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Acetone	ND	10	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Bromobenzene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Bromodichloromethane	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Bromoform	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Bromomethane	ND	3.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
2-Butanone	ND	10	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Carbon disulfide	ND	10	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Carbon Tetrachloride	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Chlorobenzene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Chloroethane	ND	2.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Chloroform	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Chloromethane	ND	3.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
2-Chlorotoluene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
4-Chlorotoluene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
cis-1,2-DCE	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
cis-1,3-Dichloropropene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 3:45:00 PM

Lab ID: 1309187-007

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromo-3-chloropropane	ND	2.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Dibromochloromethane	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Dibromomethane	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1,2-Dichlorobenzene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1,3-Dichlorobenzene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1,4-Dichlorobenzene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Dichlorodifluoromethane	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1,1-Dichloroethane	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1,1-Dichloroethene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1,2-Dichloropropane	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1,3-Dichloropropane	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
2,2-Dichloropropane	ND	2.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1,1-Dichloropropene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Hexachlorobutadiene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
2-Hexanone	ND	10	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Isopropylbenzene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
4-Isopropyltoluene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
4-Methyl-2-pentanone	ND	10	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Methylene Chloride	ND	3.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
n-Butylbenzene	ND	3.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
n-Propylbenzene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
sec-Butylbenzene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Styrene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
tert-Butylbenzene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1,1,1,2-Tetrachloroethane	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1,1,2,2-Tetrachloroethane	ND	2.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Tetrachloroethene (PCE)	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
trans-1,2-DCE	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
trans-1,3-Dichloropropene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1,2,3-Trichlorobenzene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1,2,4-Trichlorobenzene	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1,1,1-Trichloroethane	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1,1,2-Trichloroethane	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Trichloroethene (TCE)	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Trichlorofluoromethane	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
1,2,3-Trichloropropane	ND	2.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Vinyl chloride	ND	1.0	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Xylenes, Total	ND	1.5	P	µg/L	1	9/7/2013 3:37:56 AM	R13167
Surr: 1,2-Dichloroethane-d4	84.7	70-130	P	%REC	1	9/7/2013 3:37:56 AM	R13167

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 3:45:00 PM

Lab ID: 1309187-007

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 4-Bromofluorobenzene	90.2	70-130	P	%REC	1	9/7/2013 3:37:56 AM	R13167
Surr: Dibromofluoromethane	85.9	70-130	P	%REC	1	9/7/2013 3:37:56 AM	R13167
Surr: Toluene-d8	86.6	70-130	P	%REC	1	9/7/2013 3:37:56 AM	R13167

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 1:00:00 PM

Lab ID: 1309187-008

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Toluene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Ethylbenzene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Naphthalene	ND	2.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1-Methylnaphthalene	ND	4.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
2-Methylnaphthalene	ND	4.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Acetone	ND	10		µg/L	1	9/7/2013 4:09:30 AM	R13167
Bromobenzene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Bromodichloromethane	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Bromoform	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Bromomethane	ND	3.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
2-Butanone	ND	10		µg/L	1	9/7/2013 4:09:30 AM	R13167
Carbon disulfide	ND	10		µg/L	1	9/7/2013 4:09:30 AM	R13167
Carbon Tetrachloride	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Chlorobenzene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Chloroethane	ND	2.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Chloroform	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Chloromethane	ND	3.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
2-Chlorotoluene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
4-Chlorotoluene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
cis-1,2-DCE	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Dibromochloromethane	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Dibromomethane	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1,1-Dichloroethane	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1,1-Dichloroethene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1,2-Dichloropropane	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1,3-Dichloropropane	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
2,2-Dichloropropane	ND	2.0		µg/L	1	9/7/2013 4:09:30 AM	R13167

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 Annual/Quarterly

Collection Date: 9/3/2013 1:00:00 PM

Lab ID: 1309187-008

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Hexachlorobutadiene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
2-Hexanone	ND	10		µg/L	1	9/7/2013 4:09:30 AM	R13167
Isopropylbenzene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
4-Isopropyltoluene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
4-Methyl-2-pentanone	ND	10		µg/L	1	9/7/2013 4:09:30 AM	R13167
Methylene Chloride	ND	3.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
n-Butylbenzene	ND	3.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
n-Propylbenzene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
sec-Butylbenzene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Styrene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
tert-Butylbenzene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
trans-1,2-DCE	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Trichlorofluoromethane	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Vinyl chloride	ND	1.0		µg/L	1	9/7/2013 4:09:30 AM	R13167
Xylenes, Total	ND	1.5		µg/L	1	9/7/2013 4:09:30 AM	R13167
Surr: 1,2-Dichloroethane-d4	85.8	70-130		%REC	1	9/7/2013 4:09:30 AM	R13167
Surr: 4-Bromofluorobenzene	88.2	70-130		%REC	1	9/7/2013 4:09:30 AM	R13167
Surr: Dibromofluoromethane	93.2	70-130		%REC	1	9/7/2013 4:09:30 AM	R13167
Surr: Toluene-d8	85.6	70-130		%REC	1	9/7/2013 4:09:30 AM	R13167

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2013 Annual/Quarterly

Collection Date:

Lab ID: 1309187-009

Matrix: TRIP BLANK

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/10/2013 3:24:34 PM	R13260
Surr: BFB	87.9	51.5-151		%REC	1	9/10/2013 3:24:34 PM	R13260
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Toluene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Ethylbenzene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Naphthalene	ND	2.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1-Methylnaphthalene	ND	4.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
2-Methylnaphthalene	ND	4.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Acetone	ND	10		µg/L	1	9/9/2013 2:34:31 PM	R13243
Bromobenzene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Bromodichloromethane	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Bromoform	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Bromomethane	ND	3.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
2-Butanone	ND	10		µg/L	1	9/9/2013 2:34:31 PM	R13243
Carbon disulfide	ND	10		µg/L	1	9/9/2013 2:34:31 PM	R13243
Carbon Tetrachloride	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Chlorobenzene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Chloroethane	ND	2.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Chloroform	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Chloromethane	ND	3.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
2-Chlorotoluene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
4-Chlorotoluene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
cis-1,2-DCE	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Dibromochloromethane	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Dibromomethane	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1,1-Dichloroethane	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1,1-Dichloroethene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309187

Date Reported: 9/24/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2013 Annual/Quarterly

Collection Date:

Lab ID: 1309187-009

Matrix: TRIP BLANK

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,2-Dichloropropane	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1,3-Dichloropropane	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
2,2-Dichloropropane	ND	2.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1,1-Dichloropropene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Hexachlorobutadiene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
2-Hexanone	ND	10		µg/L	1	9/9/2013 2:34:31 PM	R13243
Isopropylbenzene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
4-Isopropyltoluene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
4-Methyl-2-pentanone	ND	10		µg/L	1	9/9/2013 2:34:31 PM	R13243
Methylene Chloride	ND	3.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
n-Butylbenzene	ND	3.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
n-Propylbenzene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
sec-Butylbenzene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Styrene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
tert-Butylbenzene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
trans-1,2-DCE	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Trichlorofluoromethane	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Vinyl chloride	ND	1.0		µg/L	1	9/9/2013 2:34:31 PM	R13243
Xylenes, Total	ND	1.5		µg/L	1	9/9/2013 2:34:31 PM	R13243
Surr: 1,2-Dichloroethane-d4	89.6	70-130		%REC	1	9/9/2013 2:34:31 PM	R13243
Surr: 4-Bromofluorobenzene	84.5	70-130		%REC	1	9/9/2013 2:34:31 PM	R13243
Surr: Dibromofluoromethane	88.6	70-130		%REC	1	9/9/2013 2:34:31 PM	R13243
Surr: Toluene-d8	95.5	70-130		%REC	1	9/9/2013 2:34:31 PM	R13243

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Anatek Labs, Inc.

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

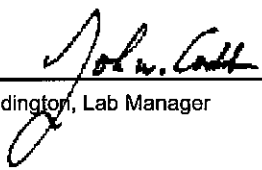
Batch #: 130911031
Project Name: 1309187

Analytical Results Report

Sample Number	130911031-001	Sampling Date	9/3/2013	Date/Time Received	9/11/2013 11:23 AM
Client Sample ID	1309187-003H / OAPIS-1	Sampling Time	4:15 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0870	mg/L	0.01	9/13/2013	CRW	EPA 335.4	

Authorized Signature


John Coddington, Lab Manager

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

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

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	MB		SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	PBW		Batch ID:	R13332		RunNo:	13332			
Prep Date:			Analysis Date:	9/12/2013		SeqNo:	379061		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS		SampType:	LCS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	LCSW		Batch ID:	R13332		RunNo:	13332			
Prep Date:			Analysis Date:	9/12/2013		SeqNo:	379065		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	102	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Calcium	49	1.0	50.00	0	97.9	85	115			
Chromium	0.50	0.0060	0.5000	0	101	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.50	0.020	0.5000	0	99.3	85	115			
Magnesium	49	1.0	50.00	0	97.8	85	115			
Manganese	0.50	0.0020	0.5000	0	99.4	85	115			
Potassium	48	1.0	50.00	0	96.8	85	115			
Silver	0.089	0.0050	0.1000	0	89.4	85	115			
Sodium	49	1.0	50.00	0	97.6	85	115			
Zinc	0.51	0.010	0.5000	0	102	85	115			

Sample ID	1309184-001FMS		SampType:	MS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	R13332		RunNo:	13332			
Prep Date:			Analysis Date:	9/12/2013		SeqNo:	379075		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.62	0.0020	0.5000	0.07990	108	70	130			
Cadmium	0.54	0.0020	0.5000	0	108	70	130			
Chromium	0.53	0.0060	0.5000	0	106	70	130			
Copper	0.57	0.0060	0.5000	0	114	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	1309184-001FMS		SampType: MS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID: R13332			RunNo: 13332				
Prep Date:			Analysis Date: 9/12/2013			SeqNo: 379075		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.59	0.020	0.5000	0.03986	109	70	130			
Magnesium	73	1.0	50.00	14.80	117	70	130			
Manganese	0.56	0.0020	0.5000	0.02770	106	70	130			
Potassium	59	1.0	50.00	0	118	70	130			
Silver	0.090	0.0050	0.1000	0	89.7	70	130			
Zinc	0.55	0.010	0.5000	0.008940	108	70	130			

Sample ID	1309184-001FMSD		SampType: MSD			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID: R13332			RunNo: 13332				
Prep Date:			Analysis Date: 9/12/2013			SeqNo: 379076		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.60	0.0020	0.5000	0.07990	104	70	130	3.01	20	
Cadmium	0.53	0.0020	0.5000	0	106	70	130	2.22	20	
Chromium	0.52	0.0060	0.5000	0	104	70	130	1.95	20	
Copper	0.55	0.0060	0.5000	0	110	70	130	3.92	20	
Iron	0.56	0.020	0.5000	0.03986	103	70	130	5.27	20	
Magnesium	68	1.0	50.00	14.80	107	70	130	6.69	20	
Manganese	0.54	0.0020	0.5000	0.02770	102	70	130	3.17	20	
Potassium	54	1.0	50.00	0	109	70	130	7.67	20	
Silver	0.086	0.0050	0.1000	0	86.2	70	130	3.89	20	
Zinc	0.54	0.010	0.5000	0.008940	106	70	130	1.91	20	

Sample ID	1309184-001FMS		SampType: MS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID: R13332			RunNo: 13332				
Prep Date:			Analysis Date: 9/12/2013			SeqNo: 379078		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	650	5.0	250.0	356.1	118	70	130			E

Sample ID	1309184-001FMSD		SampType: MSD			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID: R13332			RunNo: 13332				
Prep Date:			Analysis Date: 9/12/2013			SeqNo: 379079		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	650	5.0	250.0	356.1	119	70	130	0.552	20	E

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	MB-9256		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	9256		RunNo:	13304			
Prep Date:	9/11/2013		Analysis Date:	9/11/2013		SeqNo:	378493		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID	LCS-9256		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	9256		RunNo:	13304			
Prep Date:	9/11/2013		Analysis Date:	9/11/2013		SeqNo:	378494		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0	105	85	115			
Cadmium	0.53	0.0020	0.5000	0	106	85	115			
Chromium	0.53	0.0060	0.5000	0	106	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.51	0.020	0.5000	0	101	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Silver	0.086	0.0050	0.1000	0	86.3	85	115			

Sample ID	MB-9256		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	9256		RunNo:	13298			
Prep Date:	9/11/2013		Analysis Date:	9/11/2013		SeqNo:	378574		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Sample ID	LCS-9256		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	9256		RunNo:	13298			
Prep Date:	9/11/2013		Analysis Date:	9/11/2013		SeqNo:	378575		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.47	0.010	0.5000	0	94.9	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	1309184-008FMS		SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	R13428		RunNo:	13428			
Prep Date:			Analysis Date:	9/17/2013		SeqNo:	382020		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.12	0.0050	0.1250	0.001308	96.6	70	130			
Lead	0.13	0.0050	0.1250	0.0008299	101	70	130			
Selenium	0.12	0.0050	0.1250	0.004665	93.9	70	130			

Sample ID	LCS		SampType:	LCS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	LCSW		Batch ID:	R13428		RunNo:	13428			
Prep Date:			Analysis Date:	9/17/2013		SeqNo:	382027		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	104	85	115			
Lead	0.026	0.0010	0.02500	0	102	85	115			
Selenium	0.026	0.0010	0.02500	0	105	85	115			

Sample ID	LCS		SampType:	LCS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	LCSW		Batch ID:	R13428		RunNo:	13428			
Prep Date:			Analysis Date:	9/17/2013		SeqNo:	382028		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.5	85	115			
Lead	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	LCS		SampType:	LCS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	LCSW		Batch ID:	R13428		RunNo:	13428			
Prep Date:			Analysis Date:	9/17/2013		SeqNo:	382029		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.025	0.0010	0.02500	0	102	85	115			
Selenium	0.026	0.0010	0.02500	0	102	85	115			

Sample ID	MB		SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	PBW		Batch ID:	R13428		RunNo:	13428			
Prep Date:			Analysis Date:	9/17/2013		SeqNo:	382030		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R13428			RunNo: 13428					
Prep Date:		Analysis Date: 9/17/2013			SeqNo: 382031		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R13428			RunNo: 13428					
Prep Date:		Analysis Date: 9/17/2013			SeqNo: 382032		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	1309206-002AMS	SampType: MS			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID: R13495			RunNo: 13495					
Prep Date:		Analysis Date: 9/19/2013			SeqNo: 383978		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.026	0.0010	0.02500	0.0009368	101	70	130			
Uranium	0.039	0.0010	0.02500	0.01075	111	70	130			

Sample ID	1309206-002AMSD		SampType: MSD		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R13495		RunNo: 13495					
Prep Date:			Analysis Date: 9/19/2013		SeqNo: 383979		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.026	0.0010	0.02500	0.0009368	101	70	130	0.774	20	
Uranium	0.038	0.0010	0.02500	0.01075	108	70	130	2.47	20	

Sample ID	1309206-006AMS	SampType: MS			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID: R13495			RunNo: 13495					
Prep Date:		Analysis Date: 9/19/2013			SeqNo: 383983		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0.0001238	91.9	70	130			
Lead	0.025	0.0010	0.02500	.00007093	101	70	130			
Selenium	0.023	0.0010	0.02500	0.001707	85.3	70	130			
Uranium	0.028	0.0010	0.02500	0.001611	106	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R13495		RunNo: 13495					
Prep Date:			Analysis Date: 9/19/2013		SeqNo: 383984		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	93.7	85	115			
Lead	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.022	0.0010	0.02500	0	88.6	85	115			
Uranium	0.027	0.0010	0.02500	0	108	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R13495			RunNo: 13495					
Prep Date:		Analysis Date: 9/19/2013			SeqNo: 383985		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	1309187-006ELLMS		SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	KA-3		Batch ID:	9256		RunNo:	13390			
Prep Date:	9/11/2013		Analysis Date:	9/16/2013		SeqNo:	381010		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.002206	95.8	70	130			
Lead	0.025	0.0010	0.02500	0.0006337	98.7	70	130			
Selenium	0.025	0.0010	0.02500	0.003403	87.0	70	130			
Uranium	0.041	0.0010	0.02500	0.01251	113	70	130			

Sample ID	1309217-006ALLMS		SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC		Batch ID:	9256		RunNo:	13390			
Prep Date:	9/11/2013		Analysis Date:	9/16/2013		SeqNo:	381018		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.038	0.0010	0.02500	0.01356	98.9	70	130			

Sample ID	1309217-006ALLMS		SampType:	MSDLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC		Batch ID:	9256		RunNo:	13390			
Prep Date:	9/11/2013		Analysis Date:	9/16/2013		SeqNo:	381019		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.039	0.0010	0.02500	0.01356	100	70	130	0.672	20	

Sample ID	MB-9256		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	PBW		Batch ID:	9256		RunNo:	13390			
Prep Date:	9/11/2013		Analysis Date:	9/16/2013		SeqNo:	381027		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	LLLCS-9256		SampType:	LCSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC		Batch ID:	9256		RunNo:	13390			
Prep Date:	9/11/2013		Analysis Date:	9/16/2013		SeqNo:	381033		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.2	85	115			
Lead	0.024	0.0010	0.02500	0	96.3	85	115			
Selenium	0.023	0.0010	0.02500	0	93.4	85	115			
Uranium	0.025	0.0010	0.02500	0	101	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	MB-9344	SampType:	mblk	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	9344	RunNo:	13439					
Prep Date:	9/17/2013	Analysis Date:	9/17/2013	SeqNo:	382369	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-9344	SampType:	lcs	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	9344	RunNo:	13439					
Prep Date:	9/17/2013	Analysis Date:	9/17/2013	SeqNo:	382370	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.5	80	120			

Sample ID	1309391-001AMS	SampType:	ms	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	9344	RunNo:	13439					
Prep Date:	9/17/2013	Analysis Date:	9/17/2013	SeqNo:	382397	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.3	75	125			

Sample ID	1309391-001AMSD	SampType:	msd	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	9344	RunNo:	13439					
Prep Date:	9/17/2013	Analysis Date:	9/17/2013	SeqNo:	382398	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	95.4	75	125	0.898	20	

Sample ID	MB-9366	SampType:	mblk	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	9366	RunNo:	13503					
Prep Date:	9/18/2013	Analysis Date:	9/19/2013	SeqNo:	384199	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-9366	SampType:	lcs	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	9366	RunNo:	13503					
Prep Date:	9/18/2013	Analysis Date:	9/19/2013	SeqNo:	384200	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0052	0.00020	0.005000	0	104	80	120			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	1309206-001BMS	SampType:	ms	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	9366	RunNo:	13503					
Prep Date:	9/18/2013	Analysis Date:	9/19/2013	SeqNo:	384208	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0057	0.00020	0.005000	0	113	75	125			

Sample ID	1309206-001BMSD	SampType:	msd	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	9366	RunNo:	13503					
Prep Date:	9/18/2013	Analysis Date:	9/19/2013	SeqNo:	384211	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0055	0.00020	0.005000	0	111	75	125	2.14	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID A6	SampType: CCV_6		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13226		RunNo: 13226							
Prep Date:	Analysis Date: 9/6/2013		SeqNo: 376084		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.2	0.10	2.400	0	92.4	90	110			
Bromide	12	0.10	12.00	0	102	90	110			
Phosphorus, Orthophosphate (As P	11	0.50	12.00	0	93.4	90	110			
Sulfate	30	0.50	30.00	0	101	90	110			
Nitrate+Nitrite as N	13	0.20	12.00	0	105	90	110			

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R13226		RunNo: 13226							
Prep Date:	Analysis Date: 9/6/2013		SeqNo: 376086		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R13226		RunNo: 13226							
Prep Date:	Analysis Date: 9/6/2013		SeqNo: 376087		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.45	0.10	0.5000	0	90.6	90	110			
Bromide	2.4	0.10	2.500	0	95.9	90	110			
Phosphorus, Orthophosphate (As P	4.5	0.50	5.000	0	90.9	90	110			
Sulfate	9.2	0.50	10.00	0	91.9	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	96.5	90	110			

Sample ID 1309188-002BMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13226		RunNo: 13226							
Prep Date:	Analysis Date: 9/6/2013		SeqNo: 376089		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.76	0.10	0.5000	0.2932	92.4	76.9	114			
Bromide	2.6	0.10	2.500	0.1330	98.6	92	104			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	93.0	73.9	120			
Nitrate+Nitrite as N	5.3	0.20	3.500	1.712	102	90	110			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	1309188-002BMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13226		RunNo: 13226					
Prep Date:			Analysis Date: 9/6/2013		SeqNo: 376090		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.74	0.10	0.5000	0.2932	90.0	76.9	114	1.64	20	
Bromide	2.6	0.10	2.500	0.1330	98.5	92	104	0.181	20	
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	93.1	73.9	120	0.123	20	
Nitrate+Nitrite as N	5.3	0.20	3.500	1.712	101	90	110	0.355	20	

Sample ID	1309200-001JMS	SampType: MS			TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID: R13226			RunNo: 13226					
Prep Date:		Analysis Date: 9/6/2013			SeqNo: 376093		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.86	0.10	0.5000	0.4235	86.3	76.9	114			
Bromide	2.7	0.10	2.500	0.1883	99.2	92	104			
Phosphorus, Orthophosphate (As P	3.6	0.50	5.000	0	72.5	73.9	120			S

Sample ID	1309200-001JMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13226		RunNo: 13226					
Prep Date:			Analysis Date: 9/6/2013		SeqNo: 376094		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.81	0.10	0.5000	0.4235	76.7	76.9	114	5.82	20	S
Bromide	2.7	0.10	2.500	0.1883	98.7	92	104	0.488	20	
Phosphorus, Orthophosphate (As P	3.7	0.50	5.000	0	73.2	73.9	120	0.983	20	S

Sample ID	A4		SampType: CCV_4		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13226		RunNo: 13226					
Prep Date:			Analysis Date: 9/6/2013		SeqNo: 376096		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.97	0.10	1.000	0	96.6	90	110			
Bromide	4.9	0.10	5.000	0	98.6	90	110			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	91.8	90	110			
Sulfate	12	0.50	12.50	0	96.5	90	110			
Nitrate+Nitrite as N	4.9	0.20	5.000	0	98.0	90	110			

Sample ID	A5		SampType: CCV_5		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13226		RunNo: 13226					
Prep Date:			Analysis Date: 9/6/2013		SeqNo: 376108		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.10	1.600	0	101	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID A5	SampType: CCV_5		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13226		RunNo: 13226							
Prep Date:	Analysis Date: 9/6/2013		SeqNo: 376108		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	8.0	0.10	8.000	0	100	90	110			
Phosphorus, Orthophosphate (As P	7.6	0.50	8.000	0	94.7	90	110			
Sulfate	20	0.50	20.00	0	98.3	90	110			
Nitrate+Nitrite as N	8.1	0.20	8.000	0	101	90	110			

Sample ID A6	SampType: CCV_6		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13226		RunNo: 13226							
Prep Date:	Analysis Date: 9/6/2013		SeqNo: 376120		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.5	0.10	2.400	0	104	90	110			
Bromide	12	0.10	12.00	0	102	90	110			
Phosphorus, Orthophosphate (As P	12	0.50	12.00	0	96.4	90	110			
Sulfate	30	0.50	30.00	0	101	90	110			
Nitrate+Nitrite as N	13	0.20	12.00	0	105	90	110			

Sample ID A5	SampType: CCV_5		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13226		RunNo: 13226							
Prep Date:	Analysis Date: 9/7/2013		SeqNo: 376144		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.10	1.600	0	99.5	90	110			
Bromide	7.9	0.10	8.000	0	98.6	90	110			
Phosphorus, Orthophosphate (As P	7.2	0.50	8.000	0	89.6	90	110			S
Sulfate	20	0.50	20.00	0	98.8	90	110			
Nitrate+Nitrite as N	8.0	0.20	8.000	0	99.8	90	110			

Sample ID A6	SampType: CCV_6		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13226		RunNo: 13226							
Prep Date:	Analysis Date: 9/7/2013		SeqNo: 376156		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.5	0.10	2.400	0	103	90	110			
Bromide	12	0.10	12.00	0	101	90	110			
Phosphorus, Orthophosphate (As P	11	0.50	12.00	0	93.0	90	110			
Sulfate	31	0.50	30.00	0	103	90	110			
Nitrate+Nitrite as N	12	0.20	12.00	0	104	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID A4	SampType: CCV_4		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13226		RunNo: 13226							
Prep Date:	Analysis Date: 9/7/2013		SeqNo: 376164		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.98	0.10	1.000	0	97.9	90	110			
Bromide	4.8	0.10	5.000	0	96.3	90	110			
Phosphorus, Orthophosphate (As P	4.4	0.50	5.000	0	87.0	90	110			S
Sulfate	12	0.50	12.50	0	95.6	90	110			
Nitrate+Nitrite as N	4.8	0.20	5.000	0	96.4	90	110			

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R13346		RunNo: 13346							
Prep Date:	Analysis Date: 9/12/2013		SeqNo: 379671		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R13346		RunNo: 13346							
Prep Date:	Analysis Date: 9/12/2013		SeqNo: 379672		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	95.1	90	110			
Chloride	4.8	0.50	5.000	0	95.9	90	110			
Bromide	2.5	0.10	2.500	0	100	90	110			
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	103	90	110			

Sample ID A4	SampType: CCV_4		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13346		RunNo: 13346							
Prep Date:	Analysis Date: 9/12/2013		SeqNo: 379681		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.92	0.10	1.000	0	91.5	90	110			
Chloride	4.6	0.50	5.000	0	92.6	90	110			
Bromide	4.8	0.10	5.000	0	97.0	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.6	90	110			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID A5	SampType: CCV_5		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13346		RunNo: 13346							
Prep Date:	Analysis Date: 9/12/2013		SeqNo: 379693		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.10	1.600	0	94.2	90	110			
Chloride	8.0	0.50	8.000	0	100	90	110			
Bromide	7.8	0.10	8.000	0	98.0	90	110			
Phosphorus, Orthophosphate (As P	7.7	0.50	8.000	0	96.8	90	110			

Sample ID A6	SampType: CCV_6		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13346		RunNo: 13346							
Prep Date:	Analysis Date: 9/13/2013		SeqNo: 379706		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.3	0.10	2.400	0	96.5	90	110			
Chloride	12	0.50	12.00	0	100	90	110			
Bromide	12	0.10	12.00	0	100	90	110			
Phosphorus, Orthophosphate (As P	12	0.50	12.00	0	100	90	110			

Sample ID A4	SampType: CCV_4		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13346		RunNo: 13346							
Prep Date:	Analysis Date: 9/13/2013		SeqNo: 379719		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.91	0.10	1.000	0	91.2	90	110			
Chloride	4.6	0.50	5.000	0	92.1	90	110			
Bromide	4.8	0.10	5.000	0	95.9	90	110			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	94.2	90	110			

Sample ID A5	SampType: CCV_5		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13346		RunNo: 13346							
Prep Date:	Analysis Date: 9/13/2013		SeqNo: 379725		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.10	1.600	0	92.4	90	110			
Chloride	7.8	0.50	8.000	0	96.9	90	110			
Bromide	7.9	0.10	8.000	0	98.5	90	110			
Phosphorus, Orthophosphate (As P	7.7	0.50	8.000	0	96.7	90	110			

Sample ID A5	SampType: CCV_5		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13348		RunNo: 13348							
Prep Date:	Analysis Date: 9/12/2013		SeqNo: 379732		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID A5	SampType: CCV_5		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13348		RunNo: 13348							
Prep Date:	Analysis Date: 9/12/2013		SeqNo: 379732		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.10	1.600	0	96.0	90	110			
Chloride	7.7	0.50	8.000	0	96.7	90	110			
Bromide	8.1	0.10	8.000	0	101	90	110			
Phosphorus, Orthophosphate (As P	7.8	0.50	8.000	0	96.9	90	110			
Sulfate	20	0.50	20.00	0	99.7	90	110			

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R13348		RunNo: 13348							
Prep Date:	Analysis Date: 9/12/2013		SeqNo: 379734		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R13348		RunNo: 13348							
Prep Date:	Analysis Date: 9/12/2013		SeqNo: 379735		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	94.2	90	110			
Chloride	4.5	0.50	5.000	0	90.8	90	110			
Bromide	2.4	0.10	2.500	0	96.0	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.6	90	110			
Sulfate	9.5	0.50	10.00	0	94.8	90	110			

Sample ID 1309427-001AMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13348		RunNo: 13348							
Prep Date:	Analysis Date: 9/12/2013		SeqNo: 379737		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	5.7	1.0	5.000	1.267	89.0	76.9	114			
Chloride	190	5.0	50.00	140.3	102	89.9	119			
Bromide	25	1.0	25.00	0	101	92	104			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	1309427-001AMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13348		RunNo: 13348					
Prep Date:			Analysis Date: 9/12/2013		SeqNo: 379738		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	5.8	1.0	5.000	1.267	90.6	76.9	114	1.41	20	
Chloride	190	5.0	50.00	140.3	102	89.9	119	0.154	20	
Bromide	25	1.0	25.00	0	101	92	104	0.0592	20	

Sample ID	A6		SampType: CCV_6		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13348		RunNo: 13348					
Prep Date:			Analysis Date: 9/12/2013		SeqNo: 379745		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.4	0.10	2.400	0	101	90	110			
Chloride	12	0.50	12.00	0	101	90	110			
Bromide	12	0.10	12.00	0	104	90	110			
Phosphorus, Orthophosphate (As P	12	0.50	12.00	0	102	90	110			
Sulfate	31	0.50	30.00	0	104	90	110			

Sample ID	A4		SampType: CCV_4		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13348		RunNo: 13348					
Prep Date:			Analysis Date: 9/12/2013		SeqNo: 379757		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.0	0.10	1.000	0	100	90	110			
Chloride	4.7	0.50	5.000	0	93.0	90	110			
Bromide	5.0	0.10	5.000	0	99.0	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.7	90	110			
Sulfate	12	0.50	12.50	0	96.3	90	110			

Sample ID	A5		SampType: CCV_5		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13348		RunNo: 13348					
Prep Date:			Analysis Date: 9/12/2013		SeqNo: 379769		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.10	1.600	0	102	90	110			
Chloride	7.8	0.50	8.000	0	97.3	90	110			
Bromide	8.1	0.10	8.000	0	101	90	110			
Phosphorus, Orthophosphate (As P	7.9	0.50	8.000	0	99.4	90	110			
Sulfate	20	0.50	20.00	0	99.6	90	110			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R13348			RunNo: 13348						
Prep Date:	Analysis Date: 9/12/2013			SeqNo: 379781		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.5	0.10	2.400	0	102	90	110			
Chloride	12	0.50	12.00	0	101	90	110			
Bromide	12	0.10	12.00	0	103	90	110			
Phosphorus, Orthophosphate (As P	12	0.50	12.00	0	102	90	110			
Sulfate	31	0.50	30.00	0	103	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R13348			RunNo: 13348						
Prep Date:	Analysis Date: 9/12/2013			SeqNo: 379789		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R13348			RunNo: 13348						
Prep Date:	Analysis Date: 9/12/2013			SeqNo: 379790		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Chloride	4.7	0.50	5.000	0	94.0	90	110			
Bromide	2.5	0.10	2.500	0	98.9	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	101	90	110			
Sulfate	9.7	0.50	10.00	0	96.6	90	110			

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R13348			RunNo: 13348						
Prep Date:	Analysis Date: 9/12/2013			SeqNo: 379793		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.0	0.10	1.000	0	101	90	110			
Chloride	4.7	0.50	5.000	0	94.9	90	110			
Bromide	4.9	0.10	5.000	0	98.7	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.8	90	110			
Sulfate	12	0.50	12.50	0	96.4	90	110			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	1309420-003AMS		SampType: MS		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13348		RunNo: 13348					
Prep Date:			Analysis Date: 9/12/2013		SeqNo: 379796		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.1	0.10	0.5000	0.6549	96.5	76.9	114			
Bromide	2.3	0.10	2.500	0	91.0	92	104			S

Sample ID	1309420-003AMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13348		RunNo: 13348					
Prep Date:			Analysis Date: 9/12/2013		SeqNo: 379797		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.1	0.10	0.5000	0.6549	95.6	76.9	114	0.379	20	
Bromide	2.3	0.10	2.500	0	90.9	92	104	0.136	20	S

Sample ID	A5		SampType: CCV_5			TestCode: EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID: R13348			RunNo: 13348				
Prep Date:	Analysis Date: 9/13/2013			SeqNo: 379805		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.10	1.600	0	99.8	90	110			
Chloride	7.7	0.50	8.000	0	96.7	90	110			
Bromide	8.1	0.10	8.000	0	101	90	110			
Phosphorus, Orthophosphate (As P	7.9	0.50	8.000	0	99.3	90	110			
Sulfate	20	0.50	20.00	0	98.6	90	110			

Sample ID	A6		SampType: CCV_6		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13348		RunNo: 13348					
Prep Date:			Analysis Date: 9/13/2013		SeqNo: 379818		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.5	0.10	2.400	0	102	90	110			
Chloride	12	0.50	12.00	0	101	90	110			
Bromide	12	0.10	12.00	0	103	90	110			
Phosphorus, Orthophosphate (As P	12	0.50	12.00	0	103	90	110			
Sulfate	31	0.50	30.00	0	102	90	110			

Sample ID	A4		SampType: CCV_4		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13348		RunNo: 13348					
Prep Date:			Analysis Date: 9/13/2013		SeqNo: 379829		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.0	0.10	1.000	0	100	90	110			
Chloride	4.7	0.50	5.000	0	93.3	90	110			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R13348			RunNo: 13348						
Prep Date:	Analysis Date: 9/13/2013			SeqNo: 379829			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	5.0	0.10	5.000	0	99.3	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.2	90	110			
Sulfate	12	0.50	12.50	0	95.4	90	110			

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R13414			RunNo: 13414						
Prep Date:	Analysis Date: 9/16/2013			SeqNo: 381492			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	31	0.50	30.00	0	103	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R13414			RunNo: 13414						
Prep Date:	Analysis Date: 9/16/2013			SeqNo: 381494			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R13414			RunNo: 13414						
Prep Date:	Analysis Date: 9/16/2013			SeqNo: 381495			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.8	0.50	10.00	0	98.3	90	110			

Sample ID 1309552-002AMS	SampType: MS			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R13414			RunNo: 13414						
Prep Date:	Analysis Date: 9/16/2013			SeqNo: 381501			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	41	0.50	10.00	30.50	101	90.1	116			

Sample ID 1309552-002AMSD	SampType: MSD			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R13414			RunNo: 13414						
Prep Date:	Analysis Date: 9/16/2013			SeqNo: 381502			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	41	0.50	10.00	30.50	101	90.1	116	0.157	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	A4		SampType: CCV_4		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13414		RunNo: 13414					
Prep Date:			Analysis Date: 9/16/2013		SeqNo: 381504		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	12	0.50	12.50	0	95.7	90	110			

Sample ID	A5		SampType: CCV_5		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13414		RunNo: 13414					
Prep Date:			Analysis Date: 9/16/2013		SeqNo: 381516		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	20	0.50	20.00	0	98.5	90	110			

Sample ID	A6		SampType: CCV_6		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13414		RunNo: 13414					
Prep Date:			Analysis Date: 9/16/2013		SeqNo: 381528		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	31	0.50	30.00	0	103	90	110			

Sample ID	A4		SampType: CCV_4		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13414		RunNo: 13414					
Prep Date:			Analysis Date: 9/16/2013		SeqNo: 381540		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	12	0.50	12.50	0	96.1	90	110			

Sample ID	A5		SampType: CCV_5		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13414		RunNo: 13414					
Prep Date:			Analysis Date: 9/17/2013		SeqNo: 381552		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	20	0.50	20.00	0	98.6	90	110			

Sample ID	A6		SampType: CCV_6		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13414		RunNo: 13414					
Prep Date:			Analysis Date: 9/17/2013		SeqNo: 381561		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	31	0.50	30.00	0	103	90	110			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	A4	SampType:	CCV_4	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R13414	RunNo:	13414					
Prep Date:		Analysis Date:	9/17/2013	SeqNo:	381569	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	12	0.50	12.50	0	95.9	90	110			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	MB-9202		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 9202		RunNo: 13234					
Prep Date:	9/6/2013		Analysis Date: 9/9/2013		SeqNo: 376420		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		110	70.1	140			

Sample ID	LCS-9202		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 9202		RunNo: 13259					
Prep Date:	9/6/2013		Analysis Date: 9/10/2013		SeqNo: 377202		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.9	1.0	5.000	0	118	73.3	145			
Surr: DNOP	0.67		0.5000		134	70.1	140			

Sample ID	LCSD-9202		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 9202		RunNo: 13259					
Prep Date:	9/6/2013		Analysis Date: 9/10/2013		SeqNo: 377203		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	117	73.3	145	1.53	0	
Surr: DNOP	0.65		0.5000		131	70.1	140	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID 5ML RB	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: R13246		RunNo: 13246							
Prep Date:	Analysis Date: 9/9/2013		SeqNo: 376802		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		92.8	51.5	151			

Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: R13246		RunNo: 13246							
Prep Date:	Analysis Date: 9/9/2013		SeqNo: 376806		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	95.8	80	120			
Surr: BFB	20		20.00		102	51.5	151			

Sample ID 1309181-002AMS	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: BatchQC	Batch ID: R13246		RunNo: 13246							
Prep Date:	Analysis Date: 9/9/2013		SeqNo: 376811		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.9	0.50	5.000	0	98.4	67.7	128			
Surr: BFB	200		200.0		102	51.5	151			

Sample ID 1309181-002AMSD	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: BatchQC	Batch ID: R13246		RunNo: 13246							
Prep Date:	Analysis Date: 9/9/2013		SeqNo: 376812		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.7	0.50	5.000	0	93.1	67.7	128	5.51	20	
Surr: BFB	210		200.0		106	51.5	151	0	0	

Sample ID 5ML RB	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: R13260		RunNo: 13260							
Prep Date:	Analysis Date: 9/10/2013		SeqNo: 377444		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		94.7	51.5	151			

Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: R13260		RunNo: 13260							
Prep Date:	Analysis Date: 9/10/2013		SeqNo: 377445		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R13260	RunNo:	13260					
Prep Date:		Analysis Date:	9/10/2013	SeqNo:	377445	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.49	0.050	0.5000	0	98.5	80	120			
Surr: BFB	20		20.00		99.4	51.5	151			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R13167			RunNo: 13167					
Prep Date:		Analysis Date: 9/6/2013			SeqNo: 375580		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R13167	RunNo:	13167					
Prep Date:		Analysis Date:	9/6/2013	SeqNo:	375580	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.7		10.00		86.8	70	130			
Surr: 4-Bromofluorobenzene	8.8		10.00		87.6	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.1	70	130			
Surr: Toluene-d8	8.6		10.00		86.2	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R13167	RunNo:	13167					
Prep Date:		Analysis Date:	9/6/2013	SeqNo:	375582	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	70	130			
Toluene	19	1.0	20.00	0	94.1	82.2	124			
Chlorobenzene	18	1.0	20.00	0	89.1	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R13167			RunNo: 13167						
Prep Date:	Analysis Date: 9/6/2013			SeqNo: 375582		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	83.5	155			
Trichloroethene (TCE)	20	1.0	20.00	0	97.7	70	130			
Surr: 1,2-Dichloroethane-d4	8.9		10.00		89.1	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		89.8	70	130			
Surr: Dibromofluoromethane	8.5		10.00		85.4	70	130			
Surr: Toluene-d8	8.3		10.00		82.7	70	130			

Sample ID 1309149-007ams	SampType: MS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: BatchQC	Batch ID: R13167			RunNo: 13167						
Prep Date:	Analysis Date: 9/6/2013			SeqNo: 375585		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	41	2.0	40.00	0	102	67.9	137			
Toluene	41	2.0	40.00	0	102	77	127			
Chlorobenzene	37	2.0	40.00	0	92.6	70	130			
1,1-Dichloroethene	44	2.0	40.00	0	109	66.5	131			
Trichloroethene (TCE)	39	2.0	40.00	0	98.4	66.3	134			
Surr: 1,2-Dichloroethane-d4	18		20.00		91.4	70	130			
Surr: 4-Bromofluorobenzene	18		20.00		89.6	70	130			
Surr: Dibromofluoromethane	18		20.00		87.7	70	130			
Surr: Toluene-d8	18		20.00		90.5	70	130			

Sample ID 1309149-007amsd	SampType: MSD			TestCode: EPA Method 8260B: VOLATILES						
Client ID: BatchQC	Batch ID: R13167			RunNo: 13167						
Prep Date:	Analysis Date: 9/6/2013			SeqNo: 375586		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	40	2.0	40.00	0	100	67.9	137	1.69	20	
Toluene	37	2.0	40.00	0	91.5	77	127	11.2	20	
Chlorobenzene	35	2.0	40.00	0	88.2	70	130	4.96	20	
1,1-Dichloroethene	41	2.0	40.00	0	102	66.5	131	7.00	20	
Trichloroethene (TCE)	38	2.0	40.00	0	94.6	66.3	134	3.99	20	
Surr: 1,2-Dichloroethane-d4	18		20.00		88.3	70	130	0	0	
Surr: 4-Bromofluorobenzene	17		20.00		86.9	70	130	0	0	
Surr: Dibromofluoromethane	18		20.00		89.2	70	130	0	0	
Surr: Toluene-d8	17		20.00		83.7	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R13243			RunNo: 13243					
Prep Date:		Analysis Date: 9/9/2013			SeqNo: 376669		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R13243	RunNo:	13243					
Prep Date:		Analysis Date:	9/9/2013	SeqNo:	376669	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.9	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		93.9	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.2	70	130			
Surr: Toluene-d8	9.4		10.00		93.7	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R13243	RunNo:	13243					
Prep Date:		Analysis Date:	9/9/2013	SeqNo:	376671	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.0	70	130			
Toluene	21	1.0	20.00	0	104	82.2	124			
Chlorobenzene	19	1.0	20.00	0	93.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	100ng lcs		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: R13243		RunNo: 13243					
Prep Date:			Analysis Date: 9/9/2013		SeqNo: 376671		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	22	1.0	20.00	0	111	83.5	155			
Trichloroethene (TCE)	19	1.0	20.00	0	94.2	70	130			
Surr: 1,2-Dichloroethane-d4	8.7		10.00		87.2	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.6	70	130			
Surr: Dibromofluoromethane	8.4		10.00		83.9	70	130			
Surr: Toluene-d8	9.5		10.00		95.3	70	130			

Sample ID	1309232-001ams		SampType: MS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	BatchQC		Batch ID: R13243		RunNo: 13243					
Prep Date:			Analysis Date: 9/9/2013		SeqNo: 376677		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	41	2.0	40.00	0	103	67.9	137			
Toluene	41	2.0	40.00	0	102	77	127			
Chlorobenzene	38	2.0	40.00	0	95.6	70	130			
1,1-Dichloroethene	46	2.0	40.00	0	116	66.5	131			
Trichloroethene (TCE)	40	2.0	40.00	0	99.8	66.3	134			
Surr: 1,2-Dichloroethane-d4	18		20.00		91.2	70	130			
Surr: 4-Bromofluorobenzene	17		20.00		85.4	70	130			
Surr: Dibromofluoromethane	18		20.00		91.3	70	130			
Surr: Toluene-d8	19		20.00		93.7	70	130			

Sample ID	1309232-001amsd		SampType: MSD		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	BatchQC		Batch ID: R13243		RunNo: 13243					
Prep Date:			Analysis Date: 9/9/2013		SeqNo: 376678		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	33	2.0	40.00	0	83.5	67.9	137	20.7	20	R
Toluene	39	2.0	40.00	0	98.4	77	127	3.37	20	
Chlorobenzene	35	2.0	40.00	0	86.7	70	130	9.81	20	
1,1-Dichloroethene	39	2.0	40.00	0	97.7	66.5	131	17.3	20	
Trichloroethene (TCE)	33	2.0	40.00	0	82.7	66.3	134	18.7	20	
Surr: 1,2-Dichloroethane-d4	17		20.00		85.2	70	130	0	0	
Surr: 4-Bromofluorobenzene	20		20.00		98.3	70	130	0	0	
Surr: Dibromofluoromethane	17		20.00		83.6	70	130	0	0	
Surr: Toluene-d8	20		20.00		99.7	70	130	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	mb-9215	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	9215	RunNo:	13271					
Prep Date:	9/9/2013	Analysis Date:	9/10/2013	SeqNo:	377254	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	40								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	mb-9215	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	9215	RunNo:	13271					
Prep Date:	9/9/2013	Analysis Date:	9/10/2013	SeqNo:	377254	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: 2,4,6-Tribromophenol	120		200.0		58.1	41.5	117			
Surr: 2-Fluorobiphenyl	59		100.0		58.6	29.1	112			
Surr: 2-Fluorophenol	110		200.0		54.8	11.9	98.6			
Surr: 4-Terphenyl-d14	78		100.0		77.7	46	111			
Surr: Nitrobenzene-d5	71		100.0		70.5	34.9	112			
Surr: Phenol-d5	87		200.0		43.4	17.5	88.3			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	Ics-9215		SampType: LCS			TestCode: EPA Method 8270C: Semivolatiles				
Client ID:	LCSW		Batch ID: 9215			RunNo: 13271				
Prep Date:	9/9/2013		Analysis Date: 9/10/2013			SeqNo: 377255		Units: µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	63	10	100.0	0	63.4	53.3	92.5			
4-Chloro-3-methylphenol	140	10	200.0	0	71.3	55.9	93.9			
2-Chlorophenol	130	10	200.0	0	66.0	51.1	85.8			
1,4-Dichlorobenzene	65	10	100.0	0	64.7	41.5	86.7			
2,4-Dinitrotoluene	59	10	100.0	0	58.6	57.5	102			
N-Nitrosodi-n-propylamine	77	10	100.0	0	76.8	52.1	99.7			
4-Nitrophenol	60	10	200.0	0	30.2	27.2	53			
Pentachlorophenol	85	20	200.0	0	42.6	33.7	77.7			
Phenol	80	10	200.0	0	40.0	23.3	66.3			
Pyrene	82	10	100.0	0	82.2	57	88.7			
1,2,4-Trichlorobenzene	57	10	100.0	0	57.4	46.7	87.8			
Surr: 2,4,6-Tribromophenol	130		200.0		66.5	41.5	117			
Surr: 2-Fluorobiphenyl	63		100.0		62.7	29.1	112			
Surr: 2-Fluorophenol	110		200.0		54.0	11.9	98.6			
Surr: 4-Terphenyl-d14	77		100.0		76.8	46	111			
Surr: Nitrobenzene-d5	67		100.0		66.7	34.9	112			
Surr: Phenol-d5	85		200.0		42.4	17.5	88.3			

Sample ID	Icsd-9215		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 9215		RunNo: 13271					
Prep Date:	9/9/2013		Analysis Date: 9/10/2013		SeqNo: 377256		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	69	10	100.0	0	69.5	53.3	92.5	9.12	25	
4-Chloro-3-methylphenol	150	10	200.0	0	73.7	55.9	93.9	3.37	32.7	
2-Chlorophenol	150	10	200.0	0	73.6	51.1	85.8	11.0	20	
1,4-Dichlorobenzene	76	10	100.0	0	75.6	41.5	86.7	15.5	20	
2,4-Dinitrotoluene	63	10	100.0	0	63.1	57.5	102	7.40	29.9	
N-Nitrosodi-n-propylamine	88	10	100.0	0	88.0	52.1	99.7	13.6	23.1	
4-Nitrophenol	69	10	200.0	0	34.4	27.2	53	13.0	40.5	
Pentachlorophenol	96	20	200.0	0	48.2	33.7	77.7	12.4	37.3	
Phenol	94	10	200.0	0	46.8	23.3	66.3	15.6	20	
Pyrene	87	10	100.0	0	87.1	57	88.7	5.72	26.5	
1,2,4-Trichlorobenzene	65	10	100.0	0	64.7	46.7	87.8	11.9	27.2	
Surr: 2,4,6-Tribromophenol	150		200.0		76.1	41.5	117	0	0	
Surr: 2-Fluorobiphenyl	69		100.0		69.1	29.1	112	0	0	
Surr: 2-Fluorophenol	130		200.0		65.1	11.9	98.6	0	0	
Surr: 4-Terphenyl-d14	87		100.0		87.4	46	111	0	0	
Surr: Nitrobenzene-d5	70		100.0		69.8	34.9	112	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309187

24-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	lcsd-9215		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 9215		RunNo: 13271					
Prep Date:	9/9/2013		Analysis Date: 9/10/2013		SeqNo: 377256		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Phenol-d5	100		200.0		50.4	17.5	88.3	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1309187

RcptNo: 1

Received by/date: AT 09/05/13

Logged By: **Michelle Garcia** 9/5/2013 1:24:00 PM *Michelle Garcia*

Completed By: **Michelle Garcia** 9/6/2013 9:53:30 AM *Michelle Garcia*

Reviewed By: *[Signature]* 09/06/13

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐ *09/06/13*
9. Was preservative added to bottles? Yes ☒ No ☒ NA ☐
SEE REMARKS
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 ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met? Yes ☒ No ☐
(If no, notify customer for authorization.)

of preserved bottles checked for pH: 2
(2 or 12 unless noted)

Adjusted? YES

Checked by: *[Signature]*

Special Handling (if applicable)

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

Person Notified:	<u>[Signature]</u>	Date:	<u>09/06/13</u>
By Whom:	<u>[Signature]</u>	Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	<u>[Signature]</u>		
Client Instructions:	<u>[Signature]</u>		

17. Additional remarks: *FOR METALS ANALYSIS: ADDED 2 mL HNO₃ TO -001E, 0.4 mL HNO₃ TO -002F, AND 1 mL HNO₃ TO -001F, -002E, -005E, -006E, -007E FOR ACCEPTABLE PH. HEAD IN LOG IN FOR 24 HOURS AFTER PRESERVATION*
18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Not Present			



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

October 02, 2013

Cheryl Johnson

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

RE: 2013 Annual

OrderNo.: 1309452

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 9/11/2013 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 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-1C

Project: 2013 Annual

Collection Date: 9/9/2013 11:10:00 AM

Lab ID: 1309452-001

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	2.1	0.10		mg/L	1	9/12/2013 6:40:22 PM	R13346
Chloride	34	10		mg/L	20	9/12/2013 7:17:36 PM	R13346
Bromide	ND	0.10		mg/L	1	9/12/2013 6:40:22 PM	R13346
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/12/2013 6:40:22 PM	R13346
Sulfate	260	10		mg/L	20	9/18/2013 3:05:13 AM	R13447
Nitrate+Nitrite as N	14	1.0	*	mg/L	5	9/13/2013 12:15:25 AM	R13346
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.017	0.0020		mg/L	1	9/17/2013 2:11:25 PM	R13421
Cadmium	ND	0.0020		mg/L	1	9/17/2013 2:11:25 PM	R13421
Calcium	3.3	1.0		mg/L	1	9/17/2013 2:11:25 PM	R13421
Chromium	ND	0.0060		mg/L	1	9/17/2013 2:11:25 PM	R13421
Copper	ND	0.0060		mg/L	1	9/17/2013 2:11:25 PM	R13421
Iron	ND	0.020		mg/L	1	9/17/2013 2:11:25 PM	R13421
Magnesium	ND	1.0		mg/L	1	9/17/2013 2:11:25 PM	R13421
Manganese	ND	0.0020		mg/L	1	9/17/2013 2:11:25 PM	R13421
Potassium	1.5	1.0		mg/L	1	9/17/2013 2:11:25 PM	R13421
Silver	ND	0.0050		mg/L	1	9/17/2013 2:11:25 PM	R13421
Sodium	300	5.0		mg/L	5	9/17/2013 2:13:40 PM	R13421
Zinc	ND	0.010		mg/L	1	9/17/2013 2:11:25 PM	R13421
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.027	0.0020		mg/L	1	9/19/2013 1:18:49 PM	9322
Cadmium	ND	0.0020		mg/L	1	9/19/2013 1:18:49 PM	9322
Chromium	0.018	0.0060		mg/L	1	9/19/2013 1:18:49 PM	9322
Copper	ND	0.0060		mg/L	1	9/19/2013 1:18:49 PM	9322
Iron	0.40	0.020	*	mg/L	1	9/19/2013 1:18:49 PM	9322
Manganese	0.025	0.0020		mg/L	1	9/19/2013 1:18:49 PM	9322
Silver	ND	0.0050		mg/L	1	9/19/2013 1:18:49 PM	9322
Zinc	ND	0.010		mg/L	1	9/19/2013 1:18:49 PM	9322
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	9/23/2013 2:32:52 PM	R13540
Lead	ND	0.0010		mg/L	1	9/26/2013 2:55:41 PM	R13639
Selenium	ND	0.0010		mg/L	1	9/26/2013 2:55:41 PM	R13639
Uranium	0.0057	0.0010		mg/L	1	9/26/2013 2:55:41 PM	R13639
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	9/25/2013 3:19:32 PM	9322
Lead	ND	0.0010		mg/L	1	9/25/2013 3:19:32 PM	9322
Selenium	ND	0.0010		mg/L	1	9/25/2013 3:19:32 PM	9322

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-1C

Project: 2013 Annual

Collection Date: 9/9/2013 11:10:00 AM

Lab ID: 1309452-001

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.0060	0.0010		mg/L	1	9/27/2013 1:23:05 PM	9322
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/24/2013 6:08:38 PM	9453
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Acenaphthylene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Aniline	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Anthracene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Azobenzene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Benz(a)anthracene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Benzo(a)pyrene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Benzo(b)fluoranthene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Benzo(k)fluoranthene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Benzoic acid	ND	40		µg/L	1	9/17/2013 6:30:27 PM	9302
Benzyl alcohol	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Bis(2-ethylhexyl)phthalate	10	10		µg/L	1	9/17/2013 6:30:27 PM	9302
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Butyl benzyl phthalate	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Carbazole	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
4-Chloroaniline	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
2-Chloronaphthalene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
2-Chlorophenol	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Chrysene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Di-n-butyl phthalate	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Di-n-octyl phthalate	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Dibenzofuran	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
1,2-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
1,3-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
1,4-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Diethyl phthalate	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-1C

Project: 2013 Annual

Collection Date: 9/9/2013 11:10:00 AM

Lab ID: 1309452-001

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dimethyl phthalate	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
2,4-Dichlorophenol	ND	20		µg/L	1	9/17/2013 6:30:27 PM	9302
2,4-Dimethylphenol	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/17/2013 6:30:27 PM	9302
2,4-Dinitrophenol	ND	20		µg/L	1	9/17/2013 6:30:27 PM	9302
2,4-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
2,6-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Fluoranthene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Fluorene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Hexachlorobenzene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Hexachlorobutadiene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Hexachloroethane	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Isophorone	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
1-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
2-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
2-Methylphenol	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
3+4-Methylphenol	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
N-Nitrosodimethylamine	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Naphthalene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
2-Nitroaniline	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
3-Nitroaniline	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
4-Nitroaniline	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Nitrobenzene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
2-Nitrophenol	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
4-Nitrophenol	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Pentachlorophenol	ND	20		µg/L	1	9/17/2013 6:30:27 PM	9302
Phenanthrene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Phenol	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Pyrene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Pyridine	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/17/2013 6:30:27 PM	9302
Surr: 2,4,6-Tribromophenol	54.3	41.5-117		%REC	1	9/17/2013 6:30:27 PM	9302
Surr: 2-Fluorobiphenyl	79.8	29.1-112		%REC	1	9/17/2013 6:30:27 PM	9302

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-1C

Project: 2013 Annual

Collection Date: 9/9/2013 11:10:00 AM

Lab ID: 1309452-001

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorophenol	51.5	11.9-98.6		%REC	1	9/17/2013 6:30:27 PM	9302
Surr: 4-Terphenyl-d14	83.5	46-111		%REC	1	9/17/2013 6:30:27 PM	9302
Surr: Nitrobenzene-d5	75.7	34.9-112		%REC	1	9/17/2013 6:30:27 PM	9302
Surr: Phenol-d5	39.1	17.5-88.3		%REC	1	9/17/2013 6:30:27 PM	9302
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Toluene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Ethylbenzene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Naphthalene	ND	2.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
2-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Acetone	ND	10		µg/L	1	9/12/2013 8:58:32 PM	R13331
Bromobenzene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Bromodichloromethane	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Bromoform	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Bromomethane	ND	3.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
2-Butanone	ND	10		µg/L	1	9/12/2013 8:58:32 PM	R13331
Carbon disulfide	ND	10		µg/L	1	9/12/2013 8:58:32 PM	R13331
Carbon Tetrachloride	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Chlorobenzene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Chloroethane	ND	2.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Chloroform	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Chloromethane	ND	3.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
2-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
4-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
cis-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Dibromochloromethane	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Dibromomethane	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-1C

Project: 2013 Annual

Collection Date: 9/9/2013 11:10:00 AM

Lab ID: 1309452-001

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
1,1-Dichloroethane	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1,1-Dichloroethene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1,2-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1,3-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
2,2-Dichloropropane	ND	2.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1,1-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Hexachlorobutadiene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
2-Hexanone	ND	10		µg/L	1	9/12/2013 8:58:32 PM	R13331
Isopropylbenzene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
4-Isopropyltoluene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
4-Methyl-2-pentanone	ND	10		µg/L	1	9/12/2013 8:58:32 PM	R13331
Methylene Chloride	ND	3.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
n-Butylbenzene	ND	3.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
n-Propylbenzene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
sec-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Styrene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
tert-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
trans-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Trichlorofluoromethane	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Vinyl chloride	ND	1.0		µg/L	1	9/12/2013 8:58:32 PM	R13331
Xylenes, Total	ND	1.5		µg/L	1	9/12/2013 8:58:32 PM	R13331
Surr: 1,2-Dichloroethane-d4	92.1	70-130		%REC	1	9/12/2013 8:58:32 PM	R13331
Surr: 4-Bromofluorobenzene	96.4	70-130		%REC	1	9/12/2013 8:58:32 PM	R13331
Surr: Dibromofluoromethane	98.6	70-130		%REC	1	9/12/2013 8:58:32 PM	R13331
Surr: Toluene-d8	96.2	70-130		%REC	1	9/12/2013 8:58:32 PM	R13331

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2A

Project: 2013 Annual

Collection Date: 9/9/2013 9:12:00 AM

Lab ID: 1309452-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.90	0.10		mg/L	1	9/12/2013 7:30:01 PM	R13346
Chloride	37	10		mg/L	20	9/12/2013 7:42:25 PM	R13346
Bromide	0.39	0.10		mg/L	1	9/12/2013 7:30:01 PM	R13346
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/12/2013 7:30:01 PM	R13346
Sulfate	7.2	0.50		mg/L	1	9/18/2013 3:17:38 AM	R13447
Nitrate+Nitrite as N	3.5	1.0		mg/L	5	9/13/2013 12:27:50 AM	R13346
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.15	0.0020		mg/L	1	9/17/2013 2:15:41 PM	R13421
Cadmium	ND	0.0020		mg/L	1	9/17/2013 2:15:41 PM	R13421
Calcium	9.1	1.0		mg/L	1	9/17/2013 2:15:41 PM	R13421
Chromium	ND	0.0060		mg/L	1	9/17/2013 2:15:41 PM	R13421
Copper	ND	0.0060		mg/L	1	9/17/2013 2:15:41 PM	R13421
Iron	0.39	0.020	*	mg/L	1	9/17/2013 2:15:41 PM	R13421
Magnesium	3.3	1.0		mg/L	1	9/17/2013 2:15:41 PM	R13421
Manganese	0.15	0.0020	*	mg/L	1	9/17/2013 2:15:41 PM	R13421
Potassium	1.6	1.0		mg/L	1	9/17/2013 2:15:41 PM	R13421
Silver	ND	0.0050		mg/L	1	9/17/2013 2:15:41 PM	R13421
Sodium	320	5.0		mg/L	5	9/17/2013 2:17:51 PM	R13421
Zinc	ND	0.010		mg/L	1	9/17/2013 2:15:41 PM	R13421
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.15	0.0020		mg/L	1	9/19/2013 1:22:59 PM	9322
Cadmium	ND	0.0020		mg/L	1	9/19/2013 1:22:59 PM	9322
Chromium	ND	0.0060		mg/L	1	9/19/2013 1:22:59 PM	9322
Copper	ND	0.0060		mg/L	1	9/19/2013 1:22:59 PM	9322
Iron	0.47	0.020	*	mg/L	1	9/19/2013 1:22:59 PM	9322
Manganese	0.14	0.0020	*	mg/L	1	9/19/2013 1:22:59 PM	9322
Silver	ND	0.0050		mg/L	1	9/19/2013 1:22:59 PM	9322
Zinc	ND	0.010		mg/L	1	9/19/2013 1:22:59 PM	9322
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0081	0.0010		mg/L	1	9/23/2013 2:35:32 PM	R13540
Lead	ND	0.0010		mg/L	1	9/26/2013 2:58:20 PM	R13639
Selenium	0.0015	0.0010		mg/L	1	9/26/2013 2:58:20 PM	R13639
Uranium	ND	0.0010		mg/L	1	9/26/2013 2:58:20 PM	R13639
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0076	0.0010		mg/L	1	9/25/2013 3:21:55 PM	9322
Lead	ND	0.0010		mg/L	1	9/25/2013 3:21:55 PM	9322
Selenium	ND	0.0010		mg/L	1	9/25/2013 3:21:55 PM	9322

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2A

Project: 2013 Annual

Collection Date: 9/9/2013 9:12:00 AM

Lab ID: 1309452-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	ND	0.0010		mg/L	1	9/25/2013 3:21:55 PM	9322
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/24/2013 6:10:23 PM	9453
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Acenaphthylene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Aniline	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Anthracene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Azobenzene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Benz(a)anthracene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Benzo(a)pyrene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Benzo(b)fluoranthene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Benzo(k)fluoranthene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Benzoic acid	ND	40		µg/L	1	9/17/2013 6:59:21 PM	9302
Benzyl alcohol	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Butyl benzyl phthalate	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Carbazole	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
4-Chloroaniline	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
2-Chloronaphthalene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
2-Chlorophenol	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Chrysene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Di-n-butyl phthalate	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Di-n-octyl phthalate	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Dibenzofuran	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
1,2-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
1,3-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
1,4-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Diethyl phthalate	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2A

Project: 2013 Annual

Collection Date: 9/9/2013 9:12:00 AM

Lab ID: 1309452-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dimethyl phthalate	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
2,4-Dichlorophenol	ND	20		µg/L	1	9/17/2013 6:59:21 PM	9302
2,4-Dimethylphenol	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/17/2013 6:59:21 PM	9302
2,4-Dinitrophenol	ND	20		µg/L	1	9/17/2013 6:59:21 PM	9302
2,4-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
2,6-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Fluoranthene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Fluorene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Hexachlorobenzene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Hexachlorobutadiene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Hexachloroethane	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Isophorone	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
1-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
2-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
2-Methylphenol	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
3+4-Methylphenol	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
N-Nitrosodimethylamine	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Naphthalene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
2-Nitroaniline	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
3-Nitroaniline	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
4-Nitroaniline	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Nitrobenzene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
2-Nitrophenol	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
4-Nitrophenol	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Pentachlorophenol	ND	20		µg/L	1	9/17/2013 6:59:21 PM	9302
Phenanthrene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Phenol	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Pyrene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Pyridine	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/17/2013 6:59:21 PM	9302
Surr: 2,4,6-Tribromophenol	24.2	41.5-117	S	%REC	1	9/17/2013 6:59:21 PM	9302
Surr: 2-Fluorobiphenyl	39.1	29.1-112		%REC	1	9/17/2013 6:59:21 PM	9302

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2A

Project: 2013 Annual

Collection Date: 9/9/2013 9:12:00 AM

Lab ID: 1309452-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorophenol	38.9	11.9-98.6		%REC	1	9/17/2013 6:59:21 PM	9302
Surr: 4-Terphenyl-d14	60.4	46-111		%REC	1	9/17/2013 6:59:21 PM	9302
Surr: Nitrobenzene-d5	38.0	34.9-112		%REC	1	9/17/2013 6:59:21 PM	9302
Surr: Phenol-d5	31.2	17.5-88.3		%REC	1	9/17/2013 6:59:21 PM	9302
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Toluene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Ethylbenzene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Naphthalene	ND	2.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
2-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Acetone	ND	10		µg/L	1	9/12/2013 10:23:29 PM	R13331
Bromobenzene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Bromodichloromethane	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Bromoform	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Bromomethane	ND	3.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
2-Butanone	ND	10		µg/L	1	9/12/2013 10:23:29 PM	R13331
Carbon disulfide	ND	10		µg/L	1	9/12/2013 10:23:29 PM	R13331
Carbon Tetrachloride	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Chlorobenzene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Chloroethane	ND	2.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Chloroform	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Chloromethane	ND	3.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
2-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
4-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
cis-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Dibromochloromethane	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Dibromomethane	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331

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	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2A

Project: 2013 Annual

Collection Date: 9/9/2013 9:12:00 AM

Lab ID: 1309452-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
1,1-Dichloroethane	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1,1-Dichloroethene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1,2-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1,3-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
2,2-Dichloropropane	ND	2.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1,1-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Hexachlorobutadiene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
2-Hexanone	ND	10		µg/L	1	9/12/2013 10:23:29 PM	R13331
Isopropylbenzene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
4-Isopropyltoluene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
4-Methyl-2-pentanone	ND	10		µg/L	1	9/12/2013 10:23:29 PM	R13331
Methylene Chloride	ND	3.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
n-Butylbenzene	ND	3.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
n-Propylbenzene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
sec-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Styrene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
tert-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
trans-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Trichlorofluoromethane	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Vinyl chloride	ND	1.0		µg/L	1	9/12/2013 10:23:29 PM	R13331
Xylenes, Total	ND	1.5		µg/L	1	9/12/2013 10:23:29 PM	R13331
Surr: 1,2-Dichloroethane-d4	91.9	70-130		%REC	1	9/12/2013 10:23:29 PM	R13331
Surr: 4-Bromofluorobenzene	95.9	70-130		%REC	1	9/12/2013 10:23:29 PM	R13331
Surr: Dibromofluoromethane	96.8	70-130		%REC	1	9/12/2013 10:23:29 PM	R13331
Surr: Toluene-d8	97.7	70-130		%REC	1	9/12/2013 10:23:29 PM	R13331

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	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
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	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2B

Project: 2013 Annual

Collection Date: 9/9/2013 8:45:00 AM

Lab ID: 1309452-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.7	0.10		mg/L	1	9/19/2013 10:18:17 AM	R13485
Chloride	28	10		mg/L	20	9/19/2013 11:32:47 AM	R13485
Bromide	0.14	0.10		mg/L	1	9/19/2013 10:18:17 AM	R13485
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/19/2013 10:18:17 AM	R13485
Sulfate	150	10		mg/L	20	9/19/2013 11:32:47 AM	R13485
Nitrate+Nitrite as N	33	1.0	*	mg/L	5	9/13/2013 12:40:15 AM	R13346
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.044	0.0020		mg/L	1	9/17/2013 2:19:52 PM	R13421
Cadmium	ND	0.0020		mg/L	1	9/17/2013 2:19:52 PM	R13421
Calcium	13	1.0		mg/L	1	9/17/2013 2:19:52 PM	R13421
Chromium	ND	0.0060		mg/L	1	9/17/2013 2:19:52 PM	R13421
Copper	ND	0.0060		mg/L	1	9/17/2013 2:19:52 PM	R13421
Iron	0.078	0.020		mg/L	1	9/17/2013 2:19:52 PM	R13421
Magnesium	3.0	1.0		mg/L	1	9/17/2013 2:19:52 PM	R13421
Manganese	0.16	0.0020	*	mg/L	1	9/17/2013 2:19:52 PM	R13421
Potassium	1.7	1.0		mg/L	1	9/17/2013 2:19:52 PM	R13421
Silver	ND	0.0050		mg/L	1	9/17/2013 2:19:52 PM	R13421
Sodium	570	10		mg/L	10	9/17/2013 4:24:52 PM	R13421
Zinc	ND	0.010		mg/L	1	9/17/2013 2:19:52 PM	R13421
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.052	0.0020		mg/L	1	9/19/2013 1:27:10 PM	9322
Cadmium	ND	0.0020		mg/L	1	9/19/2013 1:27:10 PM	9322
Chromium	ND	0.0060		mg/L	1	9/19/2013 1:27:10 PM	9322
Copper	ND	0.0060		mg/L	1	9/19/2013 1:27:10 PM	9322
Iron	0.38	0.020	*	mg/L	1	9/19/2013 1:27:10 PM	9322
Manganese	0.16	0.0020	*	mg/L	1	9/19/2013 1:27:10 PM	9322
Silver	ND	0.0050		mg/L	1	9/19/2013 1:27:10 PM	9322
Zinc	ND	0.010		mg/L	1	9/19/2013 1:27:10 PM	9322
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0016	0.0010		mg/L	1	9/23/2013 2:43:32 PM	R13540
Lead	ND	0.0050		mg/L	5	9/25/2013 8:28:44 PM	R13622
Selenium	0.0035	0.0010		mg/L	1	9/23/2013 2:43:32 PM	R13540
Uranium	0.014	0.0050		mg/L	5	9/25/2013 8:28:44 PM	R13622
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0011	0.0010		mg/L	1	9/25/2013 3:24:18 PM	9322
Lead	ND	0.0010		mg/L	1	9/25/2013 3:24:18 PM	9322
Selenium	0.0013	0.0010		mg/L	1	9/25/2013 3:24:18 PM	9322

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	E	Value above quantitation range
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	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2B

Project: 2013 Annual

Collection Date: 9/9/2013 8:45:00 AM

Lab ID: 1309452-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.014	0.0010		mg/L	1	9/27/2013 1:25:28 PM	9322
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/24/2013 6:12:08 PM	9453
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Acenaphthylene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Aniline	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Anthracene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Azobenzene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Benz(a)anthracene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Benzo(a)pyrene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Benzo(b)fluoranthene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Benzo(k)fluoranthene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Benzoic acid	ND	40		µg/L	1	9/17/2013 7:28:14 PM	9302
Benzyl alcohol	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Butyl benzyl phthalate	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Carbazole	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
4-Chloroaniline	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
2-Chloronaphthalene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
2-Chlorophenol	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Chrysene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Di-n-butyl phthalate	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Di-n-octyl phthalate	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Dibenzofuran	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
1,2-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
1,3-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
1,4-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Diethyl phthalate	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2B

Project: 2013 Annual

Collection Date: 9/9/2013 8:45:00 AM

Lab ID: 1309452-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dimethyl phthalate	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
2,4-Dichlorophenol	ND	20		µg/L	1	9/17/2013 7:28:14 PM	9302
2,4-Dimethylphenol	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/17/2013 7:28:14 PM	9302
2,4-Dinitrophenol	ND	20		µg/L	1	9/17/2013 7:28:14 PM	9302
2,4-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
2,6-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Fluoranthene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Fluorene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Hexachlorobenzene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Hexachlorobutadiene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Hexachloroethane	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Isophorone	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
1-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
2-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
2-Methylphenol	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
3+4-Methylphenol	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
N-Nitrosodimethylamine	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Naphthalene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
2-Nitroaniline	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
3-Nitroaniline	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
4-Nitroaniline	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Nitrobenzene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
2-Nitrophenol	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
4-Nitrophenol	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Pentachlorophenol	ND	20		µg/L	1	9/17/2013 7:28:14 PM	9302
Phenanthrene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Phenol	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Pyrene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Pyridine	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/17/2013 7:28:14 PM	9302
Surr: 2,4,6-Tribromophenol	51.7	41.5-117		%REC	1	9/17/2013 7:28:14 PM	9302
Surr: 2-Fluorobiphenyl	75.8	29.1-112		%REC	1	9/17/2013 7:28:14 PM	9302

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2B

Project: 2013 Annual

Collection Date: 9/9/2013 8:45:00 AM

Lab ID: 1309452-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorophenol	57.5	11.9-98.6		%REC	1	9/17/2013 7:28:14 PM	9302
Surr: 4-Terphenyl-d14	85.9	46-111		%REC	1	9/17/2013 7:28:14 PM	9302
Surr: Nitrobenzene-d5	71.2	34.9-112		%REC	1	9/17/2013 7:28:14 PM	9302
Surr: Phenol-d5	43.4	17.5-88.3		%REC	1	9/17/2013 7:28:14 PM	9302
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Toluene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Ethylbenzene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Naphthalene	ND	2.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
2-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Acetone	ND	10		µg/L	1	9/12/2013 10:51:33 PM	R13331
Bromobenzene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Bromodichloromethane	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Bromoform	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Bromomethane	ND	3.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
2-Butanone	ND	10		µg/L	1	9/12/2013 10:51:33 PM	R13331
Carbon disulfide	ND	10		µg/L	1	9/12/2013 10:51:33 PM	R13331
Carbon Tetrachloride	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Chlorobenzene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Chloroethane	ND	2.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Chloroform	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Chloromethane	ND	3.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
2-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
4-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
cis-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Dibromochloromethane	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Dibromomethane	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2B

Project: 2013 Annual

Collection Date: 9/9/2013 8:45:00 AM

Lab ID: 1309452-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
1,1-Dichloroethane	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1,1-Dichloroethene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1,2-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1,3-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
2,2-Dichloropropane	ND	2.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1,1-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Hexachlorobutadiene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
2-Hexanone	ND	10		µg/L	1	9/12/2013 10:51:33 PM	R13331
Isopropylbenzene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
4-Isopropyltoluene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
4-Methyl-2-pentanone	ND	10		µg/L	1	9/12/2013 10:51:33 PM	R13331
Methylene Chloride	ND	3.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
n-Butylbenzene	ND	3.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
n-Propylbenzene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
sec-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Styrene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
tert-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
trans-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Trichlorofluoromethane	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Vinyl chloride	ND	1.0		µg/L	1	9/12/2013 10:51:33 PM	R13331
Xylenes, Total	ND	1.5		µg/L	1	9/12/2013 10:51:33 PM	R13331
Surr: 1,2-Dichloroethane-d4	92.7	70-130		%REC	1	9/12/2013 10:51:33 PM	R13331
Surr: 4-Bromofluorobenzene	98.2	70-130		%REC	1	9/12/2013 10:51:33 PM	R13331
Surr: Dibromofluoromethane	97.8	70-130		%REC	1	9/12/2013 10:51:33 PM	R13331
Surr: Toluene-d8	96.1	70-130		%REC	1	9/12/2013 10:51:33 PM	R13331

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2C

Project: 2013 Annual

Collection Date: 9/9/2013 12:15:00 PM

Lab ID: 1309452-004

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.6	0.10		mg/L	1	9/12/2013 8:44:30 PM	R13346
Chloride	43	10		mg/L	20	9/12/2013 8:56:54 PM	R13346
Bromide	ND	0.10		mg/L	1	9/12/2013 8:44:30 PM	R13346
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/12/2013 8:44:30 PM	R13346
Sulfate	270	10		mg/L	20	9/18/2013 4:07:16 AM	R13447
Nitrate+Nitrite as N	37	1.0	*	mg/L	5	9/13/2013 12:52:39 AM	R13346
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.018	0.0020		mg/L	1	9/17/2013 2:24:08 PM	R13421
Cadmium	ND	0.0020		mg/L	1	9/17/2013 2:24:08 PM	R13421
Calcium	2.4	1.0		mg/L	1	9/17/2013 2:24:08 PM	R13421
Chromium	ND	0.0060		mg/L	1	9/17/2013 2:24:08 PM	R13421
Copper	ND	0.0060		mg/L	1	9/17/2013 2:24:08 PM	R13421
Iron	ND	0.020		mg/L	1	9/17/2013 2:24:08 PM	R13421
Magnesium	ND	1.0		mg/L	1	9/17/2013 2:24:08 PM	R13421
Manganese	0.0025	0.0020		mg/L	1	9/17/2013 2:24:08 PM	R13421
Potassium	1.0	1.0		mg/L	1	9/17/2013 2:24:08 PM	R13421
Silver	ND	0.0050		mg/L	1	9/17/2013 2:24:08 PM	R13421
Sodium	300	5.0		mg/L	5	9/17/2013 2:26:15 PM	R13421
Zinc	ND	0.010		mg/L	1	9/17/2013 2:24:08 PM	R13421
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.027	0.0020		mg/L	1	9/19/2013 1:31:26 PM	9322
Cadmium	ND	0.0020		mg/L	1	9/19/2013 1:31:26 PM	9322
Chromium	ND	0.0060		mg/L	1	9/19/2013 1:31:26 PM	9322
Copper	ND	0.0060		mg/L	1	9/19/2013 1:31:26 PM	9322
Iron	0.39	0.020	*	mg/L	1	9/19/2013 1:31:26 PM	9322
Manganese	0.025	0.0020		mg/L	1	9/19/2013 1:31:26 PM	9322
Silver	ND	0.0050		mg/L	1	9/19/2013 1:31:26 PM	9322
Zinc	ND	0.010		mg/L	1	9/19/2013 1:31:26 PM	9322
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	9/23/2013 2:46:12 PM	R13540
Lead	ND	0.0050		mg/L	5	9/25/2013 8:31:24 PM	R13622
Selenium	ND	0.0010		mg/L	1	9/23/2013 2:46:12 PM	R13540
Uranium	0.0053	0.0050		mg/L	5	9/25/2013 8:31:24 PM	R13622
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	9/25/2013 3:31:32 PM	9322
Lead	ND	0.0010		mg/L	1	9/25/2013 3:31:32 PM	9322
Selenium	ND	0.0010		mg/L	1	9/25/2013 3:31:32 PM	9322

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2C

Project: 2013 Annual

Collection Date: 9/9/2013 12:15:00 PM

Lab ID: 1309452-004

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.0056	0.0010		mg/L	1	9/27/2013 1:27:51 PM	9322
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/24/2013 6:13:52 PM	9453
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Acenaphthylene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Aniline	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Anthracene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Azobenzene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Benz(a)anthracene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Benzo(a)pyrene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Benzo(b)fluoranthene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Benzo(k)fluoranthene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Benzoic acid	ND	40		µg/L	1	9/17/2013 7:57:07 PM	9302
Benzyl alcohol	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Butyl benzyl phthalate	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Carbazole	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
4-Chloroaniline	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
2-Chloronaphthalene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
2-Chlorophenol	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Chrysene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Di-n-butyl phthalate	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Di-n-octyl phthalate	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Dibenzofuran	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
1,2-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
1,3-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
1,4-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Diethyl phthalate	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2C

Project: 2013 Annual

Collection Date: 9/9/2013 12:15:00 PM

Lab ID: 1309452-004

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dimethyl phthalate	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
2,4-Dichlorophenol	ND	20		µg/L	1	9/17/2013 7:57:07 PM	9302
2,4-Dimethylphenol	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/17/2013 7:57:07 PM	9302
2,4-Dinitrophenol	ND	20		µg/L	1	9/17/2013 7:57:07 PM	9302
2,4-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
2,6-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Fluoranthene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Fluorene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Hexachlorobenzene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Hexachlorobutadiene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Hexachloroethane	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Isophorone	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
1-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
2-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
2-Methylphenol	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
3+4-Methylphenol	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
N-Nitrosodimethylamine	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Naphthalene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
2-Nitroaniline	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
3-Nitroaniline	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
4-Nitroaniline	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Nitrobenzene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
2-Nitrophenol	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
4-Nitrophenol	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Pentachlorophenol	ND	20		µg/L	1	9/17/2013 7:57:07 PM	9302
Phenanthrene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Phenol	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Pyrene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Pyridine	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/17/2013 7:57:07 PM	9302
Surr: 2,4,6-Tribromophenol	53.4	41.5-117		%REC	1	9/17/2013 7:57:07 PM	9302
Surr: 2-Fluorobiphenyl	74.9	29.1-112		%REC	1	9/17/2013 7:57:07 PM	9302

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2C

Project: 2013 Annual

Collection Date: 9/9/2013 12:15:00 PM

Lab ID: 1309452-004

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorophenol	61.8	11.9-98.6		%REC	1	9/17/2013 7:57:07 PM	9302
Surr: 4-Terphenyl-d14	85.8	46-111		%REC	1	9/17/2013 7:57:07 PM	9302
Surr: Nitrobenzene-d5	71.7	34.9-112		%REC	1	9/17/2013 7:57:07 PM	9302
Surr: Phenol-d5	44.7	17.5-88.3		%REC	1	9/17/2013 7:57:07 PM	9302
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Toluene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Ethylbenzene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Naphthalene	ND	2.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
2-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Acetone	ND	10		µg/L	1	9/12/2013 11:19:35 PM	R13331
Bromobenzene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Bromodichloromethane	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Bromoform	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Bromomethane	ND	3.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
2-Butanone	ND	10		µg/L	1	9/12/2013 11:19:35 PM	R13331
Carbon disulfide	ND	10		µg/L	1	9/12/2013 11:19:35 PM	R13331
Carbon Tetrachloride	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Chlorobenzene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Chloroethane	ND	2.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Chloroform	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Chloromethane	ND	3.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
2-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
4-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
cis-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Dibromochloromethane	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Dibromomethane	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-2C

Project: 2013 Annual

Collection Date: 9/9/2013 12:15:00 PM

Lab ID: 1309452-004

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
1,1-Dichloroethane	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1,1-Dichloroethene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1,2-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1,3-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
2,2-Dichloropropane	ND	2.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1,1-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Hexachlorobutadiene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
2-Hexanone	ND	10		µg/L	1	9/12/2013 11:19:35 PM	R13331
Isopropylbenzene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
4-Isopropyltoluene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
4-Methyl-2-pentanone	ND	10		µg/L	1	9/12/2013 11:19:35 PM	R13331
Methylene Chloride	ND	3.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
n-Butylbenzene	ND	3.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
n-Propylbenzene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
sec-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Styrene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
tert-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
trans-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Trichlorofluoromethane	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Vinyl chloride	ND	1.0		µg/L	1	9/12/2013 11:19:35 PM	R13331
Xylenes, Total	ND	1.5		µg/L	1	9/12/2013 11:19:35 PM	R13331
Surr: 1,2-Dichloroethane-d4	89.6	70-130		%REC	1	9/12/2013 11:19:35 PM	R13331
Surr: 4-Bromofluorobenzene	97.6	70-130		%REC	1	9/12/2013 11:19:35 PM	R13331
Surr: Dibromofluoromethane	97.6	70-130		%REC	1	9/12/2013 11:19:35 PM	R13331
Surr: Toluene-d8	98.9	70-130		%REC	1	9/12/2013 11:19:35 PM	R13331

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3B

Project: 2013 Annual

Collection Date: 9/9/2013 9:48:00 AM

Lab ID: 1309452-005

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.1	0.10		mg/L	1	9/12/2013 9:09:18 PM	R13346
Chloride	30	10		mg/L	20	9/12/2013 9:21:43 PM	R13346
Bromide	0.36	0.10		mg/L	1	9/12/2013 9:09:18 PM	R13346
Phosphorus, Orthophosphate (As P)	0.87	0.50	H	mg/L	1	9/12/2013 9:09:18 PM	R13346
Sulfate	45	10		mg/L	20	9/18/2013 4:19:41 AM	R13447
Nitrate+Nitrite as N	11	1.0	*	mg/L	5	9/13/2013 1:42:19 AM	R13346
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.10	0.0020		mg/L	1	9/17/2013 2:28:17 PM	R13421
Cadmium	ND	0.0020		mg/L	1	9/17/2013 2:28:17 PM	R13421
Calcium	8.3	1.0		mg/L	1	9/17/2013 2:28:17 PM	R13421
Chromium	ND	0.0060		mg/L	1	9/17/2013 2:28:17 PM	R13421
Copper	ND	0.0060		mg/L	1	9/17/2013 2:28:17 PM	R13421
Iron	0.44	0.020	*	mg/L	1	9/17/2013 2:28:17 PM	R13421
Magnesium	2.5	1.0		mg/L	1	9/17/2013 2:28:17 PM	R13421
Manganese	0.12	0.0020	*	mg/L	1	9/17/2013 2:28:17 PM	R13421
Potassium	1.2	1.0		mg/L	1	9/17/2013 2:28:17 PM	R13421
Silver	ND	0.0050		mg/L	1	9/17/2013 2:28:17 PM	R13421
Sodium	370	5.0		mg/L	5	9/17/2013 2:30:35 PM	R13421
Zinc	ND	0.010		mg/L	1	9/17/2013 2:28:17 PM	R13421
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.10	0.0020		mg/L	1	9/19/2013 1:43:52 PM	9322
Cadmium	ND	0.0020		mg/L	1	9/19/2013 1:43:52 PM	9322
Chromium	ND	0.0060		mg/L	1	9/19/2013 1:43:52 PM	9322
Copper	ND	0.0060		mg/L	1	9/19/2013 1:43:52 PM	9322
Iron	0.51	0.020	*	mg/L	1	9/19/2013 1:43:52 PM	9322
Manganese	0.10	0.0020	*	mg/L	1	9/19/2013 1:43:52 PM	9322
Silver	ND	0.0050		mg/L	1	9/19/2013 1:43:52 PM	9322
Zinc	ND	0.010		mg/L	1	9/19/2013 1:43:52 PM	9322
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0052	0.0010		mg/L	1	9/23/2013 2:48:51 PM	R13540
Lead	ND	0.0050		mg/L	5	9/25/2013 8:34:03 PM	R13622
Selenium	0.0020	0.0010		mg/L	1	9/23/2013 2:48:51 PM	R13540
Uranium	ND	0.0050		mg/L	5	9/25/2013 8:34:03 PM	R13622
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0047	0.0010		mg/L	1	9/25/2013 3:33:54 PM	9322
Lead	ND	0.0010		mg/L	1	9/25/2013 3:33:54 PM	9322
Selenium	ND	0.0010		mg/L	1	9/25/2013 3:33:54 PM	9322

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3B

Project: 2013 Annual

Collection Date: 9/9/2013 9:48:00 AM

Lab ID: 1309452-005

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	ND	0.0010		mg/L	1	9/25/2013 3:33:54 PM	9322
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/24/2013 6:19:19 PM	9453
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Acenaphthylene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Aniline	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Anthracene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Azobenzene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Benz(a)anthracene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Benzo(a)pyrene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Benzo(b)fluoranthene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Benzo(k)fluoranthene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Benzoic acid	ND	40		µg/L	1	9/17/2013 8:26:01 PM	9302
Benzyl alcohol	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Butyl benzyl phthalate	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Carbazole	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
4-Chloroaniline	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
2-Chloronaphthalene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
2-Chlorophenol	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Chrysene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Di-n-butyl phthalate	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Di-n-octyl phthalate	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Dibenzofuran	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
1,2-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
1,3-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
1,4-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Diethyl phthalate	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3B

Project: 2013 Annual

Collection Date: 9/9/2013 9:48:00 AM

Lab ID: 1309452-005

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dimethyl phthalate	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
2,4-Dichlorophenol	ND	20		µg/L	1	9/17/2013 8:26:01 PM	9302
2,4-Dimethylphenol	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/17/2013 8:26:01 PM	9302
2,4-Dinitrophenol	ND	20		µg/L	1	9/17/2013 8:26:01 PM	9302
2,4-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
2,6-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Fluoranthene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Fluorene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Hexachlorobenzene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Hexachlorobutadiene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Hexachloroethane	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Isophorone	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
1-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
2-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
2-Methylphenol	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
3+4-Methylphenol	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
N-Nitrosodimethylamine	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Naphthalene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
2-Nitroaniline	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
3-Nitroaniline	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
4-Nitroaniline	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Nitrobenzene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
2-Nitrophenol	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
4-Nitrophenol	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Pentachlorophenol	ND	20		µg/L	1	9/17/2013 8:26:01 PM	9302
Phenanthrene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Phenol	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Pyrene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Pyridine	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/17/2013 8:26:01 PM	9302
Surr: 2,4,6-Tribromophenol	55.7	41.5-117		%REC	1	9/17/2013 8:26:01 PM	9302
Surr: 2-Fluorobiphenyl	80.0	29.1-112		%REC	1	9/17/2013 8:26:01 PM	9302

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3B

Project: 2013 Annual

Collection Date: 9/9/2013 9:48:00 AM

Lab ID: 1309452-005

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorophenol	66.5	11.9-98.6		%REC	1	9/17/2013 8:26:01 PM	9302
Surr: 4-Terphenyl-d14	92.0	46-111		%REC	1	9/17/2013 8:26:01 PM	9302
Surr: Nitrobenzene-d5	81.5	34.9-112		%REC	1	9/17/2013 8:26:01 PM	9302
Surr: Phenol-d5	49.2	17.5-88.3		%REC	1	9/17/2013 8:26:01 PM	9302
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Toluene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Ethylbenzene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Naphthalene	ND	2.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
2-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Acetone	ND	10		µg/L	1	9/12/2013 11:47:48 PM	R13331
Bromobenzene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Bromodichloromethane	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Bromoform	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Bromomethane	ND	3.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
2-Butanone	ND	10		µg/L	1	9/12/2013 11:47:48 PM	R13331
Carbon disulfide	ND	10		µg/L	1	9/12/2013 11:47:48 PM	R13331
Carbon Tetrachloride	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Chlorobenzene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Chloroethane	ND	2.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Chloroform	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Chloromethane	ND	3.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
2-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
4-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
cis-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Dibromochloromethane	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Dibromomethane	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3B

Project: 2013 Annual

Collection Date: 9/9/2013 9:48:00 AM

Lab ID: 1309452-005

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
1,1-Dichloroethane	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1,1-Dichloroethene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1,2-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1,3-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
2,2-Dichloropropane	ND	2.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1,1-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Hexachlorobutadiene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
2-Hexanone	ND	10		µg/L	1	9/12/2013 11:47:48 PM	R13331
Isopropylbenzene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
4-Isopropyltoluene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
4-Methyl-2-pentanone	ND	10		µg/L	1	9/12/2013 11:47:48 PM	R13331
Methylene Chloride	ND	3.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
n-Butylbenzene	ND	3.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
n-Propylbenzene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
sec-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Styrene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
tert-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
trans-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Trichlorofluoromethane	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Vinyl chloride	ND	1.0		µg/L	1	9/12/2013 11:47:48 PM	R13331
Xylenes, Total	ND	1.5		µg/L	1	9/12/2013 11:47:48 PM	R13331
Surr: 1,2-Dichloroethane-d4	91.0	70-130		%REC	1	9/12/2013 11:47:48 PM	R13331
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	1	9/12/2013 11:47:48 PM	R13331
Surr: Dibromofluoromethane	97.0	70-130		%REC	1	9/12/2013 11:47:48 PM	R13331
Surr: Toluene-d8	98.9	70-130		%REC	1	9/12/2013 11:47:48 PM	R13331

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3C

Project: 2013 Annual

Collection Date: 9/9/2013 1:00:00 PM

Lab ID: 1309452-006

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.0	0.10		mg/L	1	9/12/2013 9:34:08 PM	R13346
Chloride	35	10		mg/L	20	9/12/2013 9:46:32 PM	R13346
Bromide	ND	0.10		mg/L	1	9/12/2013 9:34:08 PM	R13346
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/12/2013 9:34:08 PM	R13346
Sulfate	320	10		mg/L	20	9/18/2013 4:32:05 AM	R13447
Nitrate+Nitrite as N	ND	1.0		mg/L	5	9/13/2013 1:54:43 AM	R13346
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.039	0.0020		mg/L	1	9/17/2013 2:39:13 PM	R13421
Cadmium	ND	0.0020		mg/L	1	9/17/2013 2:39:13 PM	R13421
Calcium	4.1	1.0		mg/L	1	9/17/2013 2:39:13 PM	R13421
Chromium	ND	0.0060		mg/L	1	9/17/2013 2:39:13 PM	R13421
Copper	ND	0.0060		mg/L	1	9/17/2013 2:39:13 PM	R13421
Iron	0.46	0.020	*	mg/L	1	9/17/2013 2:39:13 PM	R13421
Magnesium	ND	1.0		mg/L	1	9/17/2013 2:39:13 PM	R13421
Manganese	0.022	0.0020		mg/L	1	9/17/2013 2:39:13 PM	R13421
Potassium	1.8	1.0		mg/L	1	9/17/2013 2:39:13 PM	R13421
Silver	ND	0.0050		mg/L	1	9/17/2013 2:39:13 PM	R13421
Sodium	340	5.0		mg/L	5	9/17/2013 2:41:32 PM	R13421
Zinc	ND	0.010		mg/L	1	9/17/2013 2:39:13 PM	R13421
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.073	0.0020		mg/L	1	9/19/2013 1:48:10 PM	9322
Cadmium	ND	0.0020		mg/L	1	9/19/2013 1:48:10 PM	9322
Chromium	ND	0.0060		mg/L	1	9/19/2013 1:48:10 PM	9322
Copper	ND	0.0060		mg/L	1	9/19/2013 1:48:10 PM	9322
Iron	1.5	0.10	*	mg/L	5	9/19/2013 1:50:08 PM	9322
Manganese	0.051	0.0020	*	mg/L	1	9/19/2013 1:48:10 PM	9322
Silver	ND	0.0050		mg/L	1	9/19/2013 1:48:10 PM	9322
Zinc	0.010	0.010		mg/L	1	9/19/2013 1:48:10 PM	9322
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0020	0.0010		mg/L	1	9/23/2013 2:51:31 PM	R13540
Lead	ND	0.0050		mg/L	5	9/25/2013 8:42:04 PM	R13622
Selenium	ND	0.0010		mg/L	1	9/23/2013 2:51:31 PM	R13540
Uranium	ND	0.0050		mg/L	5	9/25/2013 8:42:04 PM	R13622
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0021	0.0010		mg/L	1	9/25/2013 3:36:17 PM	9322
Lead	ND	0.0010		mg/L	1	9/25/2013 3:36:17 PM	9322
Selenium	ND	0.0010		mg/L	1	9/25/2013 3:36:17 PM	9322

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3C

Project: 2013 Annual

Collection Date: 9/9/2013 1:00:00 PM

Lab ID: 1309452-006

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	0.0020	0.0010		mg/L	1	9/27/2013 1:30:15 PM	9322
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/24/2013 6:21:05 PM	9453
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Acenaphthylene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Aniline	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Anthracene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Azobenzene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Benz(a)anthracene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Benzo(a)pyrene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Benzo(b)fluoranthene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Benzo(k)fluoranthene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Benzoic acid	ND	40		µg/L	1	9/17/2013 8:54:54 PM	9302
Benzyl alcohol	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Butyl benzyl phthalate	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Carbazole	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
4-Chloroaniline	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
2-Chloronaphthalene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
2-Chlorophenol	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Chrysene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Di-n-butyl phthalate	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Di-n-octyl phthalate	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Dibenzofuran	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
1,2-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
1,3-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
1,4-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Diethyl phthalate	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3C

Project: 2013 Annual

Collection Date: 9/9/2013 1:00:00 PM

Lab ID: 1309452-006

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dimethyl phthalate	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
2,4-Dichlorophenol	ND	20		µg/L	1	9/17/2013 8:54:54 PM	9302
2,4-Dimethylphenol	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/17/2013 8:54:54 PM	9302
2,4-Dinitrophenol	ND	20		µg/L	1	9/17/2013 8:54:54 PM	9302
2,4-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
2,6-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Fluoranthene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Fluorene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Hexachlorobenzene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Hexachlorobutadiene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Hexachloroethane	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Isophorone	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
1-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
2-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
2-Methylphenol	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
3+4-Methylphenol	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
N-Nitrosodimethylamine	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Naphthalene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
2-Nitroaniline	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
3-Nitroaniline	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
4-Nitroaniline	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Nitrobenzene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
2-Nitrophenol	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
4-Nitrophenol	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Pentachlorophenol	ND	20		µg/L	1	9/17/2013 8:54:54 PM	9302
Phenanthrene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Phenol	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Pyrene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Pyridine	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/17/2013 8:54:54 PM	9302
Surr: 2,4,6-Tribromophenol	58.5	41.5-117		%REC	1	9/17/2013 8:54:54 PM	9302
Surr: 2-Fluorobiphenyl	76.5	29.1-112		%REC	1	9/17/2013 8:54:54 PM	9302

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3C

Project: 2013 Annual

Collection Date: 9/9/2013 1:00:00 PM

Lab ID: 1309452-006

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorophenol	66.9	11.9-98.6		%REC	1	9/17/2013 8:54:54 PM	9302
Surr: 4-Terphenyl-d14	83.7	46-111		%REC	1	9/17/2013 8:54:54 PM	9302
Surr: Nitrobenzene-d5	78.4	34.9-112		%REC	1	9/17/2013 8:54:54 PM	9302
Surr: Phenol-d5	48.6	17.5-88.3		%REC	1	9/17/2013 8:54:54 PM	9302
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Toluene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Ethylbenzene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Naphthalene	ND	2.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1-Methylnaphthalene	ND	4.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
2-Methylnaphthalene	ND	4.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Acetone	ND	10		µg/L	1	9/13/2013 12:16:04 AM	R13331
Bromobenzene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Bromodichloromethane	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Bromoform	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Bromomethane	ND	3.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
2-Butanone	ND	10		µg/L	1	9/13/2013 12:16:04 AM	R13331
Carbon disulfide	ND	10		µg/L	1	9/13/2013 12:16:04 AM	R13331
Carbon Tetrachloride	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Chlorobenzene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Chloroethane	ND	2.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Chloroform	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Chloromethane	ND	3.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
2-Chlorotoluene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
4-Chlorotoluene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
cis-1,2-DCE	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Dibromochloromethane	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Dibromomethane	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW-3C

Project: 2013 Annual

Collection Date: 9/9/2013 1:00:00 PM

Lab ID: 1309452-006

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
1,1-Dichloroethane	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1,1-Dichloroethene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1,2-Dichloropropane	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1,3-Dichloropropane	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
2,2-Dichloropropane	ND	2.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1,1-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Hexachlorobutadiene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
2-Hexanone	ND	10		µg/L	1	9/13/2013 12:16:04 AM	R13331
Isopropylbenzene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
4-Isopropyltoluene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
4-Methyl-2-pentanone	ND	10		µg/L	1	9/13/2013 12:16:04 AM	R13331
Methylene Chloride	ND	3.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
n-Butylbenzene	ND	3.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
n-Propylbenzene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
sec-Butylbenzene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Styrene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
tert-Butylbenzene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
trans-1,2-DCE	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Trichlorofluoromethane	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Vinyl chloride	ND	1.0		µg/L	1	9/13/2013 12:16:04 AM	R13331
Xylenes, Total	ND	1.5		µg/L	1	9/13/2013 12:16:04 AM	R13331
Surr: 1,2-Dichloroethane-d4	92.8	70-130		%REC	1	9/13/2013 12:16:04 AM	R13331
Surr: 4-Bromofluorobenzene	95.3	70-130		%REC	1	9/13/2013 12:16:04 AM	R13331
Surr: Dibromofluoromethane	97.9	70-130		%REC	1	9/13/2013 12:16:04 AM	R13331
Surr: Toluene-d8	96.5	70-130		%REC	1	9/13/2013 12:16:04 AM	R13331

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2013 Annual

Collection Date: 9/9/2013 8:00:00 AM

Lab ID: 1309452-007

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Toluene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Ethylbenzene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Naphthalene	ND	2.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1-Methylnaphthalene	ND	4.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
2-Methylnaphthalene	ND	4.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Acetone	ND	10		µg/L	1	9/13/2013 12:44:15 AM	R13331
Bromobenzene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Bromodichloromethane	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Bromoform	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Bromomethane	ND	3.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
2-Butanone	ND	10		µg/L	1	9/13/2013 12:44:15 AM	R13331
Carbon disulfide	ND	10		µg/L	1	9/13/2013 12:44:15 AM	R13331
Carbon Tetrachloride	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Chlorobenzene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Chloroethane	ND	2.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Chloroform	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Chloromethane	ND	3.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
2-Chlorotoluene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
4-Chlorotoluene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
cis-1,2-DCE	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Dibromochloromethane	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Dibromomethane	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1,1-Dichloroethane	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1,1-Dichloroethene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1,2-Dichloropropane	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1,3-Dichloropropane	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
2,2-Dichloropropane	ND	2.0		µg/L	1	9/13/2013 12:44:15 AM	R13331

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2013 Annual

Collection Date: 9/9/2013 8:00:00 AM

Lab ID: 1309452-007

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
1,1-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Hexachlorobutadiene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
2-Hexanone	ND	10		µg/L	1	9/13/2013 12:44:15 AM	R13331
Isopropylbenzene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
4-Isopropyltoluene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
4-Methyl-2-pentanone	ND	10		µg/L	1	9/13/2013 12:44:15 AM	R13331
Methylene Chloride	ND	3.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
n-Butylbenzene	ND	3.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
n-Propylbenzene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
sec-Butylbenzene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Styrene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
tert-Butylbenzene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
trans-1,2-DCE	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Trichlorofluoromethane	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Vinyl chloride	ND	1.0		µg/L	1	9/13/2013 12:44:15 AM	R13331
Xylenes, Total	ND	1.5		µg/L	1	9/13/2013 12:44:15 AM	R13331
Surr: 1,2-Dichloroethane-d4	90.3	70-130		%REC	1	9/13/2013 12:44:15 AM	R13331
Surr: 4-Bromofluorobenzene	93.9	70-130		%REC	1	9/13/2013 12:44:15 AM	R13331
Surr: Dibromofluoromethane	95.9	70-130		%REC	1	9/13/2013 12:44:15 AM	R13331
Surr: Toluene-d8	98.4	70-130		%REC	1	9/13/2013 12:44:15 AM	R13331

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 Annual

Collection Date:

Lab ID: 1309452-008

Matrix: TRIP BLANK

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Toluene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Ethylbenzene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Naphthalene	ND	2.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1-Methylnaphthalene	ND	4.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
2-Methylnaphthalene	ND	4.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Acetone	ND	10		µg/L	1	9/13/2013 1:12:30 AM	R13331
Bromobenzene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Bromodichloromethane	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Bromoform	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Bromomethane	ND	3.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
2-Butanone	ND	10		µg/L	1	9/13/2013 1:12:30 AM	R13331
Carbon disulfide	ND	10		µg/L	1	9/13/2013 1:12:30 AM	R13331
Carbon Tetrachloride	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Chlorobenzene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Chloroethane	ND	2.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Chloroform	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Chloromethane	ND	3.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
2-Chlorotoluene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
4-Chlorotoluene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
cis-1,2-DCE	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Dibromochloromethane	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Dibromomethane	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1,1-Dichloroethane	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1,1-Dichloroethene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1,2-Dichloropropane	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1,3-Dichloropropane	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
2,2-Dichloropropane	ND	2.0		µg/L	1	9/13/2013 1:12:30 AM	R13331

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309452

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 Annual

Collection Date:

Lab ID: 1309452-008

Matrix: TRIP BLANK

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
1,1-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Hexachlorobutadiene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
2-Hexanone	ND	10		µg/L	1	9/13/2013 1:12:30 AM	R13331
Isopropylbenzene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
4-Isopropyltoluene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
4-Methyl-2-pentanone	ND	10		µg/L	1	9/13/2013 1:12:30 AM	R13331
Methylene Chloride	ND	3.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
n-Butylbenzene	ND	3.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
n-Propylbenzene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
sec-Butylbenzene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Styrene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
tert-Butylbenzene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
trans-1,2-DCE	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Trichlorofluoromethane	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Vinyl chloride	ND	1.0		µg/L	1	9/13/2013 1:12:30 AM	R13331
Xylenes, Total	ND	1.5		µg/L	1	9/13/2013 1:12:30 AM	R13331
Surr: 1,2-Dichloroethane-d4	88.7	70-130		%REC	1	9/13/2013 1:12:30 AM	R13331
Surr: 4-Bromofluorobenzene	95.6	70-130		%REC	1	9/13/2013 1:12:30 AM	R13331
Surr: Dibromofluoromethane	92.9	70-130		%REC	1	9/13/2013 1:12:30 AM	R13331
Surr: Toluene-d8	98.4	70-130		%REC	1	9/13/2013 1:12:30 AM	R13331

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID MB	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PBW	Batch ID: R13421		RunNo: 13421							
Prep Date:	Analysis Date: 9/17/2013		SeqNo: 381764		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: LCSW	Batch ID: R13421		RunNo: 13421							
Prep Date:	Analysis Date: 9/17/2013		SeqNo: 381765		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Calcium	50	1.0	50.00	0	99.7	85	115			
Chromium	0.49	0.0060	0.5000	0	98.8	85	115			
Copper	0.49	0.0060	0.5000	0	98.0	85	115			
Iron	0.51	0.020	0.5000	0	101	85	115			
Magnesium	50	1.0	50.00	0	99.9	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Potassium	49	1.0	50.00	0	97.5	85	115			
Silver	0.087	0.0050	0.1000	0	86.8	85	115			
Sodium	49	1.0	50.00	0	98.0	85	115			
Zinc	0.52	0.010	0.5000	0	104	85	115			

Sample ID 1309441-001EMS	SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: R13421		RunNo: 13421							
Prep Date:	Analysis Date: 9/17/2013		SeqNo: 382040		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.55	0.010	0.5000	0.02891	105	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	1309441-001EMSD			SampType:	MSD			TestCode:	EPA Method 200.7: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	R13421			RunNo:	13421		
Prep Date:				Analysis Date:	9/17/2013			SeqNo:	382041		
									Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Zinc	0.55	0.010	0.5000	0.02891	105	70	130	0.405	20		

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB-9322		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 9322		RunNo: 13421					
Prep Date:	9/16/2013		Analysis Date: 9/17/2013		SeqNo: 381766		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								
Zinc	ND	0.010								

Sample ID	LCS-9322		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 9322		RunNo: 13421					
Prep Date:	9/16/2013		Analysis Date: 9/17/2013		SeqNo: 381767		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	95.3	85	115			
Zinc	0.50	0.010	0.5000	0	99.5	85	115			

Sample ID	MB-9322		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 9322		RunNo: 13423					
Prep Date:	9/16/2013		Analysis Date: 9/17/2013		SeqNo: 381796		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								

Sample ID	LCS-9322		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 9322		RunNo: 13423					
Prep Date:	9/16/2013		Analysis Date: 9/17/2013		SeqNo: 381797		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Iron	0.50	0.020	0.5000	0	99.9	85	115			
Manganese	0.49	0.0020	0.5000	0	98.3	85	115			
Silver	0.091	0.0050	0.1000	0	90.6	85	115			

Sample ID	1309482-003AMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 9322		RunNo: 13423					
Prep Date:	9/16/2013		Analysis Date: 9/17/2013		SeqNo: 381844		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	1309482-003AMS	SampType:	MS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	9322	RunNo:	13423					
Prep Date:	9/16/2013	Analysis Date:	9/17/2013	SeqNo:	381844	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.54	0.020	0.5000	0	107	70	130			

Sample ID	1309482-003AMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	9322	RunNo:	13423					
Prep Date:	9/16/2013	Analysis Date:	9/17/2013	SeqNo:	381846	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.52	0.020	0.5000	0	105	70	130	2.41	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	1309441-002EMS			SampType:	MS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	R13540			RunNo:	13540		
Prep Date:				Analysis Date:	9/23/2013			SeqNo:	385146		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.030	0.0010	0.02500	0.002959	107	70	130				

Sample ID	1309441-002EMSD			SampType:	MSD			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	R13540			RunNo:	13540		
Prep Date:				Analysis Date:	9/23/2013			SeqNo:	385147		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.030	0.0010	0.02500	0.002959	106	70	130	0.464	20		

Sample ID	1309447-003GMS			SampType:	MS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	R13540			RunNo:	13540		
Prep Date:				Analysis Date:	9/23/2013			SeqNo:	385154		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.028	0.0010	0.02500	0.002636	99.5	70	130				

Sample ID	LCS			SampType:	LCS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	LCSW			Batch ID:	R13540			RunNo:	13540		
Prep Date:				Analysis Date:	9/23/2013			SeqNo:	385193		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.025	0.0010	0.02500	0	98.5	85	115				
Selenium	0.024	0.0010	0.02500	0	95.9	85	115				

Sample ID	LCS			SampType:	LCS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	LCSW			Batch ID:	R13540			RunNo:	13540		
Prep Date:				Analysis Date:	9/23/2013			SeqNo:	385194		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.025	0.0010	0.02500	0	100	85	115				

Sample ID	LCS			SampType:	LCS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	LCSW			Batch ID:	R13540			RunNo:	13540		
Prep Date:				Analysis Date:	9/23/2013			SeqNo:	385195		
								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	102	85	115				
Selenium	0.024	0.0010	0.02500	0	96.0	85	115				

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385196		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	102	85	115			
Selenium	0.024	0.0010	0.02500	0	96.8	85	115			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385197		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385198		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385199		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385200		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 1309447-003GMS	SampType: MS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: R13622			RunNo: 13622						
Prep Date:	Analysis Date: 9/25/2013			SeqNo: 387975		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.16	0.0050	0.1250	0.03056	99.9	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R13622		RunNo: 13622					
Prep Date:			Analysis Date: 9/25/2013		SeqNo: 387984		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.026	0.0010	0.02500	0	105	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R13622		RunNo: 13622					
Prep Date:			Analysis Date: 9/25/2013		SeqNo: 387985		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	98.3	85	115			
Uranium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R13622			RunNo: 13622					
Prep Date:		Analysis Date: 9/25/2013			SeqNo: 387986		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R13622			RunNo: 13622					
Prep Date:		Analysis Date: 9/25/2013			SeqNo: 387987		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R13639		RunNo: 13639					
Prep Date:			Analysis Date: 9/26/2013		SeqNo: 388441		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	100	85	115			
Selenium	0.025	0.0010	0.02500	0	98.8	85	115			
Uranium	0.025	0.0010	0.02500	0	101	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID MB	SampType: MBLK				TestCode: EPA 200.8: Dissolved Metals					
Client ID: PBW	Batch ID: R13639				RunNo: 13639					
Prep Date:	Analysis Date: 9/26/2013				SeqNo: 388442		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID 1309441-002EMS	SampType: MS				TestCode: EPA 200.8: Dissolved Metals					
Client ID: BatchQC	Batch ID: R13639				RunNo: 13639					
Prep Date:	Analysis Date: 9/26/2013				SeqNo: 388782		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Selenium	0.025	0.0010	0.02500	0.001212	96.6	70	130			

Sample ID 1309441-002EMSD	SampType: MSD				TestCode: EPA 200.8: Dissolved Metals					
Client ID: BatchQC	Batch ID: R13639				RunNo: 13639					
Prep Date:	Analysis Date: 9/26/2013				SeqNo: 388783		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Selenium	0.026	0.0010	0.02500	0.001212	98.0	70	130	1.30	20	

Sample ID 1309447-003GMS	SampType: MS				TestCode: EPA 200.8: Dissolved Metals					
Client ID: BatchQC	Batch ID: R13639				RunNo: 13639					
Prep Date:	Analysis Date: 9/26/2013				SeqNo: 388791		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	0.025	0.0010	0.02500	0.00009317	102	70	130			
Selenium	0.023	0.0010	0.02500	0.0007799	90.2	70	130			

Sample ID 1309930-003EMS	SampType: MS				TestCode: EPA 200.8: Dissolved Metals					
Client ID: BatchQC	Batch ID: R13639				RunNo: 13639					
Prep Date:	Analysis Date: 9/26/2013				SeqNo: 388814		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	0.12	0.0050	0.1250	0.0002282	99.2	70	130			

Sample ID 1309930-003EMSD	SampType: MSD				TestCode: EPA 200.8: Dissolved Metals					
Client ID: BatchQC	Batch ID: R13639				RunNo: 13639					
Prep Date:	Analysis Date: 9/26/2013				SeqNo: 388815		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	0.13	0.0050	0.1250	0.0002282	101	70	130	2.09	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	LCS		SampType: LCS			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R13639			RunNo: 13639					
Prep Date:			Analysis Date: 9/26/2013			SeqNo: 388822		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.025	0.0010	0.02500	0	99.9	85	115				
Selenium	0.025	0.0010	0.02500	0	100	85	115				
Uranium	0.025	0.0010	0.02500	0	101	85	115				

Sample ID	MB		SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R13639			RunNo: 13639					
Prep Date:			Analysis Date: 9/26/2013			SeqNo: 388823		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	ND	0.0010									
Selenium	ND	0.0010									
Uranium	ND	0.0010									

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	1309460-001BLLMS			SampType:	MSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	BatchQC			Batch ID:	9322			RunNo:	13621		
Prep Date:	9/16/2013			Analysis Date:	9/25/2013			SeqNo:	387798		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.036	0.0010	0.02500	0.009391	105	70	130				

Sample ID	1309474-002ALLMS			SampType:	MSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	BatchQC			Batch ID:	9322			RunNo:	13621		
Prep Date:	9/16/2013			Analysis Date:	9/25/2013			SeqNo:	387811		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.036	0.0010	0.02500	0.009646	106	70	130				

Sample ID	LLLCS-9322			SampType:	LCSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	BatchQC			Batch ID:	9322			RunNo:	13621		
Prep Date:	9/16/2013			Analysis Date:	9/25/2013			SeqNo:	387813		
								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	0.026	0.0010	0.02500	0	106	85	115				
Selenium	0.025	0.0010	0.02500	0	102	85	115				

Sample ID	MB-9322			SampType:	MBLK			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	PBW			Batch ID:	9322			RunNo:	13621		
Prep Date:	9/16/2013			Analysis Date:	9/25/2013			SeqNo:	387814		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	ND	0.0010									
Selenium	ND	0.0010									

Sample ID	LLLCS-9322			SampType:	LCSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	BatchQC			Batch ID:	9322			RunNo:	13688		
Prep Date:	9/16/2013			Analysis Date:	9/27/2013			SeqNo:	389998		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.026	0.0010	0.02500	0	104	85	115				

Sample ID	MB-9322			SampType:	MBLK			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	PBW			Batch ID:	9322			RunNo:	13688		
Prep Date:	9/16/2013			Analysis Date:	9/27/2013			SeqNo:	390004		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	ND	0.0010									

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB-9453		SampType: mblk		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 9453		RunNo: 13591					
Prep Date:	9/24/2013		Analysis Date: 9/24/2013		SeqNo: 386838		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-9453		SampType: lcs		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 9453		RunNo: 13591					
Prep Date:	9/24/2013		Analysis Date: 9/24/2013		SeqNo: 386839		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.7	80	120			

Sample ID	1309441-001DMS		SampType: ms		TestCode: EPA Method 245.1: Mercury					
Client ID:	BatchQC		Batch ID: 9453		RunNo: 13591					
Prep Date:	9/24/2013		Analysis Date: 9/24/2013		SeqNo: 386842		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.5	75	125			

Sample ID	1309441-001DMSD			SampType:	msd		TestCode:	EPA Method 245.1: Mercury			
Client ID:	BatchQC			Batch ID:	9453		RunNo:	13591			
Prep Date:	9/24/2013			Analysis Date:	9/24/2013		SeqNo:	386843		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0049	0.00020	0.005000	0	99.0	75	125	0.444	20		

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R13346		RunNo: 13346							
Prep Date:	Analysis Date: 9/12/2013		SeqNo: 379671		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R13346		RunNo: 13346							
Prep Date:	Analysis Date: 9/12/2013		SeqNo: 379672		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	95.1	90	110			
Chloride	4.8	0.50	5.000	0	95.9	90	110			
Bromide	2.5	0.10	2.500	0	100	90	110			
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	103	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.8	90	110			

Sample ID 1309452-001CMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: BW-1C	Batch ID: R13346		RunNo: 13346							
Prep Date:	Analysis Date: 9/12/2013		SeqNo: 379674		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.5	0.10	0.5000	2.122	70.3	76.9	114			S
Bromide	2.5	0.10	2.500	0.06850	98.5	92	104			

Sample ID 1309452-001CMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: BW-1C	Batch ID: R13346		RunNo: 13346							
Prep Date:	Analysis Date: 9/12/2013		SeqNo: 379675		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.3	0.10	0.5000	2.122	45.4	76.9	114	5.16	20	S
Bromide	2.5	0.10	2.500	0.06850	98.4	92	104	0.0988	20	

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R13447		RunNo: 13447							
Prep Date:	Analysis Date: 9/17/2013		SeqNo: 382527		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R13447		RunNo: 13447					
Prep Date:			Analysis Date: 9/17/2013		SeqNo: 382528		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.6	0.50	10.00	0	95.9	90	110			

Sample ID	1309637-001BMS		SampType: MS		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13447		RunNo: 13447					
Prep Date:			Analysis Date: 9/17/2013		SeqNo: 382530		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	10	0.50	10.00	0.1420	101	90.1	116			

Sample ID	1309637-001BMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13447		RunNo: 13447					
Prep Date:			Analysis Date: 9/17/2013		SeqNo: 382531		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	10	0.50	10.00	0.1420	100	90.1	116	0.938	20	

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R13447			RunNo: 13447					
Prep Date:		Analysis Date: 9/17/2013			SeqNo: 382579		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R13447		RunNo: 13447					
Prep Date:			Analysis Date: 9/17/2013		SeqNo: 382580		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.5	0.50	10.00	0	95.2	90	110			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R13485			RunNo: 13485					
Prep Date:		Analysis Date: 9/19/2013			SeqNo: 383624		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID: R13485			RunNo: 13485					
Prep Date:		Analysis Date: 9/19/2013			SeqNo: 383625		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.7	0.50	5.000	0	93.5	90	110			
Bromide	2.5	0.10	2.500	0	98.1	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	100	90	110			
Sulfate	9.5	0.50	10.00	0	95.1	90	110			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R13331			RunNo: 13331					
Prep Date:		Analysis Date: 9/12/2013			SeqNo: 379036	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R13331			RunNo: 13331					
Prep Date:		Analysis Date: 9/12/2013			SeqNo: 379036		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	10		10.00		99.7	70	130			
Surr: Toluene-d8	9.5		10.00		94.9	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R13331			RunNo: 13331					
Prep Date:		Analysis Date: 9/12/2013			SeqNo: 379037		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	112	70	130			
Toluene	21	1.0	20.00	0	106	82.2	124			
Chlorobenzene	21	1.0	20.00	0	104	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID 100ng lcs	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES					
Client ID: LCSW	Batch ID: R13331				RunNo: 13331					
Prep Date:	Analysis Date: 9/12/2013				SeqNo: 379037		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	24	1.0	20.00	0	120	83.5	155			
Trichloroethene (TCE)	20	1.0	20.00	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.0	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.4	70	130			
Surr: Dibromofluoromethane	9.7		10.00		97.1	70	130			
Surr: Toluene-d8	9.9		10.00		98.8	70	130			

Sample ID 1309452-001ams	SampType: MS				TestCode: EPA Method 8260B: VOLATILES					
Client ID: BW-1C	Batch ID: R13331				RunNo: 13331					
Prep Date:	Analysis Date: 9/12/2013				SeqNo: 379039		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	116	67.9	137			
Toluene	20	1.0	20.00	0	102	77	127			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	25	1.0	20.00	0	123	66.5	131			
Trichloroethene (TCE)	21	1.0	20.00	0	103	66.3	134			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.5	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		91.9	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.4	70	130			
Surr: Toluene-d8	9.4		10.00		93.7	70	130			

Sample ID 1309452-001amsd	SampType: MSD				TestCode: EPA Method 8260B: VOLATILES					
Client ID: BW-1C	Batch ID: R13331				RunNo: 13331					
Prep Date:	Analysis Date: 9/12/2013				SeqNo: 379040		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	113	67.9	137	2.74	20	
Toluene	20	1.0	20.00	0	99.7	77	127	2.42	20	
Chlorobenzene	20	1.0	20.00	0	98.5	70	130	3.31	20	
1,1-Dichloroethene	23	1.0	20.00	0	115	66.5	131	6.93	20	
Trichloroethene (TCE)	20	1.0	20.00	0	102	66.3	134	0.538	20	
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.3		10.00		93.1	70	130	0	0	
Surr: Dibromofluoromethane	9.8		10.00		98.4	70	130	0	0	
Surr: Toluene-d8	9.4		10.00		94.3	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	mb-9302	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	9302	RunNo:	13374					
Prep Date:	9/13/2013	Analysis Date:	9/13/2013	SeqNo:	380277	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	40								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	mb-9302	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	9302	RunNo:	13374					
Prep Date:	9/13/2013	Analysis Date:	9/13/2013	SeqNo:	380277	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: 2,4,6-Tribromophenol	140		200.0		68.8	41.5	117			
Surr: 2-Fluorobiphenyl	72		100.0		71.8	29.1	112			
Surr: 2-Fluorophenol	130		200.0		65.9	11.9	98.6			
Surr: 4-Terphenyl-d14	81		100.0		81.4	46	111			
Surr: Nitrobenzene-d5	77		100.0		77.4	34.9	112			
Surr: Phenol-d5	98		200.0		48.9	17.5	88.3			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	Ics-9302		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 9302		RunNo: 13374					
Prep Date:	9/13/2013		Analysis Date: 9/13/2013		SeqNo: 380279		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	72.2	53.3	92.5			
4-Chloro-3-methylphenol	170	10	200.0	0	84.1	55.9	93.9			
2-Chlorophenol	170	10	200.0	0	82.7	51.1	85.8			
1,4-Dichlorobenzene	70	10	100.0	0	70.0	41.5	86.7			
2,4-Dinitrotoluene	67	10	100.0	0	67.3	57.5	102			
N-Nitrosodi-n-propylamine	91	10	100.0	0	91.5	52.1	99.7			
4-Nitrophenol	82	10	200.0	0	41.0	27.2	53			
Pentachlorophenol	110	20	200.0	0	53.9	33.7	77.7			
Phenol	110	10	200.0	0	52.7	23.3	66.3			
Pyrene	98	10	100.0	0	98.0	57	88.7			S
1,2,4-Trichlorobenzene	75	10	100.0	0	75.4	46.7	87.8			
Surr: 2,4,6-Tribromophenol	150		200.0		76.8	41.5	117			
Surr: 2-Fluorobiphenyl	68		100.0		68.4	29.1	112			
Surr: 2-Fluorophenol	120		200.0		59.5	11.9	98.6			
Surr: 4-Terphenyl-d14	87		100.0		87.3	46	111			
Surr: Nitrobenzene-d5	80		100.0		79.6	34.9	112			
Surr: Phenol-d5	98		200.0		49.2	17.5	88.3			

Sample ID	1309397-003Dms	SampType: MS			TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	BatchQC	Batch ID: 9302			RunNo: 13374					
Prep Date:	9/13/2013	Analysis Date: 9/13/2013			SeqNo: 380320		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	81	20	100.0	0	80.5	70	130			
4-Chloro-3-methylphenol	160	20	200.0	0	78.3	70	130			
2-Chlorophenol	180	20	200.0	0	91.3	70	130			
1,4-Dichlorobenzene	86	20	100.0	0	85.6	70	130			
2,4-Dinitrotoluene	64	20	100.0	0	64.1	70	130			S
N-Nitrosodi-n-propylamine	100	20	100.0	0	102	70	130			
4-Nitrophenol	76	20	200.0	0	38.0	70	130			S
Pentachlorophenol	99	40	200.0	0	49.7	70	130			S
Phenol	110	20	200.0	0	53.6	70	130			S
Pyrene	98	20	100.0	0	98.0	70	130			
1,2,4-Trichlorobenzene	79	20	100.0	0	78.6	70	130			
Surr: 2,4,6-Tribromophenol	150		200.0		75.0	41.5	117			
Surr: 2-Fluorobiphenyl	89		100.0		89.0	29.1	112			
Surr: 2-Fluorophenol	140		200.0		71.7	11.9	98.6			
Surr: 4-Terphenyl-d14	94		100.0		94.4	46	111			
Surr: Nitrobenzene-d5	95		100.0		95.1	34.9	112			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309452

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	1309397-003Dms	SampType:	MS	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	BatchQC	Batch ID:	9302	RunNo:	13374					
Prep Date:	9/13/2013	Analysis Date:	9/13/2013	SeqNo:	380320	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Phenol-d5	120		200.0		60.7	17.5	88.3			

Sample ID	1309397-003Dmsd	SampType:	MSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	BatchQC	Batch ID:	9302	RunNo:	13374					
Prep Date:	9/13/2013	Analysis Date:	9/13/2013	SeqNo:	380322	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	79	20	100.0	0	79.1	70	130	1.80	20	
4-Chloro-3-methylphenol	160	20	200.0	0	81.0	70	130	3.34	20	
2-Chlorophenol	180	20	200.0	0	87.6	70	130	4.05	20	
1,4-Dichlorobenzene	79	20	100.0	0	79.4	70	130	7.52	20	
2,4-Dinitrotoluene	72	20	100.0	0	71.6	70	130	11.0	20	
N-Nitrosodi-n-propylamine	100	20	100.0	0	101	70	130	1.30	20	
4-Nitrophenol	79	20	200.0	0	39.7	70	130	4.37	20	S
Pentachlorophenol	110	40	200.0	0	54.7	70	130	9.50	20	S
Phenol	100	20	200.0	0	51.8	70	130	3.49	20	S
Pyrene	98	20	100.0	0	98.0	70	130	0.0408	20	
1,2,4-Trichlorobenzene	79	20	100.0	0	79.4	70	130	1.11	20	
Surr: 2,4,6-Tribromophenol	160		200.0		78.8	41.5	117	0	0	
Surr: 2-Fluorobiphenyl	88		100.0		88.4	29.1	112	0	0	
Surr: 2-Fluorophenol	140		200.0		67.8	11.9	98.6	0	0	
Surr: 4-Terphenyl-d14	90		100.0		89.6	46	111	0	0	
Surr: Nitrobenzene-d5	91		100.0		90.6	34.9	112	0	0	
Surr: Phenol-d5	110		200.0		57.2	17.5	88.3	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1309452

RcptNo: 1

Received by/date:

mg

09/11/13

Logged By: Ashley Gallegos

9/11/2013 11:10:00 AM

AG

Completed By: Ashley Gallegos

9/12/2013 9:55:45 AM

AG

Reviewed By:

mg

09/12/13

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☒	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☒	No ☐	Not Present ☐
3. How was the sample delivered?	Client ☐		

Log In

4. Was an attempt made to cool the samples?	Yes ☒	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☒	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☒	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☒	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☒	No ☐	
9. Was preservative added to bottles?	Yes ☒	No ☒	NA ☐
10. VOA vials have zero headspace?	Yes ☒	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☒	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☒	No ☐	# of preserved bottles checked for pH: <i>13</i> (<i>13</i> or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☒	No ☐	Adjusted? <i>YES</i>
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 ☐	Checked by: <i>[Signature]</i>

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

eMail

Phone

Fax

In Person

Regarding:

Client Instructions:

17. Additional remarks:

FOR METALS ANALYSIS: ADDED 1mL HNO₃ TO -00215 AND 0.4mL HNO₃ TO -00412-002 FOR ACCEPTABLE PH. HELD IN LOGAN FOR 24 HOURS AFTER PRESERVATION

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good	Not Present			

AG 09/12/13
W/410



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

September 23, 2013

Cheryl Johnson

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

RE: 2013 Annual/Quarterly

OrderNo.: 1309184

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 10 sample(s) on 9/5/2013 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 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 9:15:00 AM

Lab ID: 1309184-001

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/13/2013 2:39:29 PM	9202
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/13/2013 2:39:29 PM	9202
Surr: DNOP	118	70.1-140		%REC	1	9/13/2013 2:39:29 PM	9202
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	1.4	0.050		mg/L	1	9/9/2013 5:18:52 PM	R13246
Surr: BFB	91.6	51.5-151		%REC	1	9/9/2013 5:18:52 PM	R13246
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.26	0.10		mg/L	1	9/6/2013 3:11:31 PM	R13226
Chloride	170	10		mg/L	20	9/6/2013 3:23:56 PM	R13226
Bromide	0.77	0.10		mg/L	1	9/6/2013 3:11:31 PM	R13226
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/6/2013 3:11:31 PM	R13226
Sulfate	55	10		mg/L	20	9/6/2013 3:23:56 PM	R13226
Nitrate+Nitrite as N	4.6	1.0		mg/L	5	9/13/2013 2:07:08 AM	R13346
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.080	0.0020		mg/L	1	9/12/2013 10:08:11 AM	R13332
Cadmium	ND	0.0020		mg/L	1	9/12/2013 10:08:11 AM	R13332
Calcium	56	5.0		mg/L	5	9/10/2013 5:10:41 PM	R13275
Chromium	ND	0.0060		mg/L	1	9/12/2013 10:08:11 AM	R13332
Copper	ND	0.0060		mg/L	1	9/12/2013 10:08:11 AM	R13332
Iron	0.040	0.020		mg/L	1	9/12/2013 10:08:11 AM	R13332
Magnesium	15	1.0		mg/L	1	9/12/2013 10:08:11 AM	R13332
Manganese	0.028	0.0020		mg/L	1	9/12/2013 10:08:11 AM	R13332
Potassium	ND	1.0		mg/L	1	9/12/2013 10:08:11 AM	R13332
Silver	ND	0.0050		mg/L	1	9/12/2013 10:08:11 AM	R13332
Sodium	360	5.0		mg/L	5	9/12/2013 10:19:29 AM	R13332
Zinc	ND	0.010		mg/L	1	9/12/2013 10:08:11 AM	R13332
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.081	0.0020		mg/L	1	9/12/2013 3:40:10 PM	9255
Cadmium	ND	0.0020		mg/L	1	9/12/2013 3:40:10 PM	9255
Chromium	ND	0.0060		mg/L	1	9/12/2013 3:40:10 PM	9255
Copper	ND	0.0060		mg/L	1	9/12/2013 3:40:10 PM	9255
Iron	0.051	0.020		mg/L	1	9/12/2013 3:40:10 PM	9255
Manganese	0.025	0.0020		mg/L	1	9/12/2013 3:40:10 PM	9255
Silver	ND	0.0050		mg/L	1	9/12/2013 3:40:10 PM	9255
Zinc	ND	0.010		mg/L	1	9/12/2013 3:40:10 PM	9255
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/17/2013 2:38:20 PM	R13428

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 9:15:00 AM

Lab ID: 1309184-001

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	9/17/2013 2:38:20 PM	R13428
Selenium	ND	0.0050		mg/L	5	9/17/2013 2:38:20 PM	R13428
Uranium	0.059	0.010	*	mg/L	10	9/19/2013 2:37:36 PM	R13495
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0012	0.0010		mg/L	1	9/16/2013 12:48:30 PM	9255
Lead	ND	0.0010		mg/L	1	9/16/2013 12:48:30 PM	9255
Selenium	0.0029	0.0010		mg/L	1	9/16/2013 12:48:30 PM	9255
Uranium	0.055	0.0050	*	mg/L	5	9/16/2013 3:00:19 PM	9255
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/17/2013 6:27:40 PM	9344
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Toluene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Ethylbenzene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Methyl tert-butyl ether (MTBE)	2100	20		µg/L	20	9/6/2013 7:13:02 PM	R13159
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Naphthalene	ND	2.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
1-Methylnaphthalene	ND	4.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
2-Methylnaphthalene	ND	4.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Acetone	ND	10		µg/L	1	9/6/2013 7:41:50 PM	R13159
Bromobenzene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Bromodichloromethane	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Bromoform	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Bromomethane	ND	3.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
2-Butanone	ND	10		µg/L	1	9/6/2013 7:41:50 PM	R13159
Carbon disulfide	ND	10		µg/L	1	9/6/2013 7:41:50 PM	R13159
Carbon Tetrachloride	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Chlorobenzene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Chloroethane	ND	2.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Chloroform	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Chloromethane	ND	3.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
2-Chlorotoluene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
4-Chlorotoluene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
cis-1,2-DCE	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 9:15:00 AM

Lab ID: 1309184-001

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Dibromochloromethane	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Dibromomethane	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
1,1-Dichloroethane	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
1,1-Dichloroethene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
1,2-Dichloropropane	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
1,3-Dichloropropane	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
2,2-Dichloropropane	ND	2.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
1,1-Dichloropropene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Hexachlorobutadiene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
2-Hexanone	ND	10		µg/L	1	9/6/2013 7:41:50 PM	R13159
Isopropylbenzene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
4-Isopropyltoluene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
4-Methyl-2-pentanone	ND	10		µg/L	1	9/6/2013 7:41:50 PM	R13159
Methylene Chloride	ND	3.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
n-Butylbenzene	ND	3.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
n-Propylbenzene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
sec-Butylbenzene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Styrene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
tert-Butylbenzene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
trans-1,2-DCE	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Trichlorofluoromethane	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Vinyl chloride	ND	1.0		µg/L	1	9/6/2013 7:41:50 PM	R13159
Xylenes, Total	ND	1.5		µg/L	1	9/6/2013 7:41:50 PM	R13159
Surr: 1,2-Dichloroethane-d4	88.4	70-130		%REC	1	9/6/2013 7:41:50 PM	R13159

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1309184**

Date Reported: **9/23/2013**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 9:15:00 AM

Lab ID: 1309184-001

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	9/6/2013 7:41:50 PM	R13159
Surr: Dibromofluoromethane	108	70-130		%REC	1	9/6/2013 7:41:50 PM	R13159
Surr: Toluene-d8	92.3	70-130		%REC	1	9/6/2013 7:41:50 PM	R13159

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 10:10:00 AM

Lab ID: 1309184-002

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	7.8	1.0		mg/L	1	9/13/2013 3:01:43 PM	9202
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/13/2013 3:01:43 PM	9202
Surr: DNOP	112	70.1-140		%REC	1	9/13/2013 3:01:43 PM	9202
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	7.6	0.50		mg/L	10	9/9/2013 5:47:27 PM	R13246
Surr: BFB	94.8	51.5-151		%REC	10	9/9/2013 5:47:27 PM	R13246
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.21	0.10		mg/L	1	9/6/2013 3:36:20 PM	R13226
Chloride	350	25	*	mg/L	50	9/13/2013 3:41:12 AM	R13348
Bromide	2.5	0.10		mg/L	1	9/6/2013 3:36:20 PM	R13226
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/6/2013 3:36:20 PM	R13226
Sulfate	3.2	0.50		mg/L	1	9/6/2013 3:36:20 PM	R13226
Nitrate+Nitrite as N	5.9	1.0		mg/L	5	9/13/2013 2:19:32 AM	R13346
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	1.5	0.010		mg/L	5	9/10/2013 5:19:12 PM	R13275
Cadmium	ND	0.0020		mg/L	1	9/10/2013 5:17:10 PM	R13275
Calcium	94	1.0		mg/L	1	9/10/2013 5:17:10 PM	R13275
Chromium	ND	0.0060		mg/L	1	9/10/2013 5:17:10 PM	R13275
Copper	ND	0.0060		mg/L	1	9/10/2013 5:17:10 PM	R13275
Iron	4.5	0.10	*	mg/L	5	9/10/2013 5:19:12 PM	R13275
Magnesium	26	1.0		mg/L	1	9/10/2013 5:17:10 PM	R13275
Manganese	2.2	0.010	*	mg/L	5	9/10/2013 5:19:12 PM	R13275
Potassium	1.9	1.0		mg/L	1	9/10/2013 5:17:10 PM	R13275
Silver	ND	0.025		mg/L	5	9/10/2013 5:19:12 PM	R13275
Sodium	390	10		mg/L	10	9/12/2013 10:46:12 AM	R13332
Zinc	ND	0.010		mg/L	1	9/10/2013 5:17:10 PM	R13275
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	1.5	0.010		mg/L	5	9/12/2013 3:46:35 PM	9255
Cadmium	ND	0.0020		mg/L	1	9/12/2013 3:44:34 PM	9255
Chromium	ND	0.0060		mg/L	1	9/12/2013 3:44:34 PM	9255
Copper	ND	0.0060		mg/L	1	9/12/2013 3:44:34 PM	9255
Iron	4.5	0.10	*	mg/L	5	9/12/2013 3:46:35 PM	9255
Manganese	2.1	0.010	*	mg/L	5	9/12/2013 3:46:35 PM	9255
Silver	ND	0.025		mg/L	5	9/12/2013 3:46:35 PM	9255
Zinc	ND	0.010		mg/L	1	9/12/2013 3:44:34 PM	9255
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.010	0.0050	*	mg/L	5	9/17/2013 2:41:00 PM	R13428

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 10:10:00 AM

Lab ID: 1309184-002

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	9/17/2013 2:41:00 PM	R13428
Selenium	0.012	0.0050		mg/L	5	9/17/2013 2:41:00 PM	R13428
Uranium	ND	0.010		mg/L	10	9/19/2013 2:40:15 PM	R13495
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.010	0.0010	*	mg/L	1	9/16/2013 12:50:53 PM	9255
Lead	ND	0.0010		mg/L	1	9/16/2013 12:50:53 PM	9255
Selenium	0.011	0.0010		mg/L	1	9/16/2013 12:50:53 PM	9255
Uranium	0.0093	0.0010		mg/L	1	9/16/2013 12:50:53 PM	9255
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/17/2013 6:29:24 PM	9344
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	2600	50		µg/L	50	9/6/2013 8:39:25 PM	R13159
Toluene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
Ethylbenzene	63	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
Methyl tert-butyl ether (MTBE)	940	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
Naphthalene	ND	10		µg/L	5	9/6/2013 9:08:11 PM	R13159
1-Methylnaphthalene	24	20		µg/L	5	9/6/2013 9:08:11 PM	R13159
2-Methylnaphthalene	ND	20		µg/L	5	9/6/2013 9:08:11 PM	R13159
Acetone	ND	50		µg/L	5	9/6/2013 9:08:11 PM	R13159
Bromobenzene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
Bromodichloromethane	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
Bromoform	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
Bromomethane	ND	15		µg/L	5	9/6/2013 9:08:11 PM	R13159
2-Butanone	ND	50		µg/L	5	9/6/2013 9:08:11 PM	R13159
Carbon disulfide	ND	50		µg/L	5	9/6/2013 9:08:11 PM	R13159
Carbon Tetrachloride	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
Chlorobenzene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
Chloroethane	ND	10		µg/L	5	9/6/2013 9:08:11 PM	R13159
Chloroform	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
Chloromethane	ND	15		µg/L	5	9/6/2013 9:08:11 PM	R13159
2-Chlorotoluene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
4-Chlorotoluene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
cis-1,2-DCE	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 10:10:00 AM

Lab ID: 1309184-002

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	9/6/2013 9:08:11 PM	R13159
Dibromochloromethane	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
Dibromomethane	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
1,2-Dichlorobenzene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
1,3-Dichlorobenzene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
1,4-Dichlorobenzene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
Dichlorodifluoromethane	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
1,1-Dichloroethane	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
1,1-Dichloroethene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
1,2-Dichloropropane	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
1,3-Dichloropropane	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
2,2-Dichloropropane	ND	10		µg/L	5	9/6/2013 9:08:11 PM	R13159
1,1-Dichloropropene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
Hexachlorobutadiene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
2-Hexanone	ND	50		µg/L	5	9/6/2013 9:08:11 PM	R13159
Isopropylbenzene	6.0	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
4-Isopropyltoluene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
4-Methyl-2-pentanone	ND	50		µg/L	5	9/6/2013 9:08:11 PM	R13159
Methylene Chloride	ND	15		µg/L	5	9/6/2013 9:08:11 PM	R13159
n-Butylbenzene	ND	15		µg/L	5	9/6/2013 9:08:11 PM	R13159
n-Propylbenzene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
sec-Butylbenzene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
Styrene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
tert-Butylbenzene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	9/6/2013 9:08:11 PM	R13159
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
trans-1,2-DCE	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
1,1,1-Trichloroethane	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
1,1,2-Trichloroethane	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
Trichloroethene (TCE)	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
Trichlorofluoromethane	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
1,2,3-Trichloropropane	ND	10		µg/L	5	9/6/2013 9:08:11 PM	R13159
Vinyl chloride	ND	5.0		µg/L	5	9/6/2013 9:08:11 PM	R13159
Xylenes, Total	ND	7.5		µg/L	5	9/6/2013 9:08:11 PM	R13159
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%REC	5	9/6/2013 9:08:11 PM	R13159

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1309184**

Date Reported: **9/23/2013**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 10:10:00 AM

Lab ID: 1309184-002

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 4-Bromofluorobenzene	98.4	70-130		%REC	5	9/6/2013 9:08:11 PM	R13159
Surr: Dibromofluoromethane	106	70-130		%REC	5	9/6/2013 9:08:11 PM	R13159
Surr: Toluene-d8	97.8	70-130		%REC	5	9/6/2013 9:08:11 PM	R13159

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 11:00:00 AM

Lab ID: 1309184-003

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/13/2013 3:24:04 PM	9202
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/13/2013 3:24:04 PM	9202
Surr: DNOP	109	70.1-140		%REC	1	9/13/2013 3:24:04 PM	9202
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	0.88	0.050		mg/L	1	9/9/2013 6:16:11 PM	R13246
Surr: BFB	91.0	51.5-151		%REC	1	9/9/2013 6:16:11 PM	R13246
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.43	0.10		mg/L	1	9/6/2013 4:01:09 PM	R13226
Chloride	160	10		mg/L	20	9/6/2013 4:13:34 PM	R13226
Bromide	0.94	0.10		mg/L	1	9/6/2013 4:01:09 PM	R13226
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/6/2013 4:01:09 PM	R13226
Sulfate	84	10		mg/L	20	9/6/2013 4:13:34 PM	R13226
Nitrate+Nitrite as N	3.9	1.0		mg/L	5	9/13/2013 2:31:57 AM	R13346
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.062	0.0020		mg/L	1	9/10/2013 5:21:11 PM	R13275
Cadmium	ND	0.0020		mg/L	1	9/10/2013 5:21:11 PM	R13275
Calcium	53	1.0		mg/L	1	9/10/2013 5:21:11 PM	R13275
Chromium	ND	0.0060		mg/L	1	9/10/2013 5:21:11 PM	R13275
Copper	ND	0.0060		mg/L	1	9/10/2013 5:21:11 PM	R13275
Iron	0.31	0.020	*	mg/L	1	9/10/2013 5:21:11 PM	R13275
Magnesium	11	1.0		mg/L	1	9/10/2013 5:21:11 PM	R13275
Manganese	0.28	0.0020	*	mg/L	1	9/10/2013 5:21:11 PM	R13275
Potassium	1.9	1.0		mg/L	1	9/10/2013 5:21:11 PM	R13275
Silver	ND	0.0050		mg/L	1	9/10/2013 5:21:11 PM	R13275
Sodium	350	5.0		mg/L	5	9/12/2013 10:49:50 AM	R13332
Zinc	ND	0.010		mg/L	1	9/10/2013 5:21:11 PM	R13275
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.061	0.0020		mg/L	1	9/12/2013 3:48:34 PM	9255
Cadmium	ND	0.0020		mg/L	1	9/12/2013 3:48:34 PM	9255
Chromium	ND	0.0060		mg/L	1	9/12/2013 3:48:34 PM	9255
Copper	ND	0.0060		mg/L	1	9/12/2013 3:48:34 PM	9255
Iron	0.34	0.020	*	mg/L	1	9/12/2013 3:48:34 PM	9255
Manganese	0.28	0.0020	*	mg/L	1	9/12/2013 3:48:34 PM	9255
Silver	ND	0.0050		mg/L	1	9/12/2013 3:48:34 PM	9255
Zinc	0.018	0.010		mg/L	1	9/12/2013 3:48:34 PM	9255
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/17/2013 2:43:39 PM	R13428

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 11:00:00 AM

Lab ID: 1309184-003

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	9/17/2013 2:43:39 PM	R13428
Selenium	ND	0.0050		mg/L	5	9/17/2013 2:43:39 PM	R13428
Uranium	0.060	0.010	*	mg/L	10	9/19/2013 2:42:55 PM	R13495
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	9/16/2013 12:53:17 PM	9255
Lead	ND	0.0010		mg/L	1	9/16/2013 12:53:17 PM	9255
Selenium	0.0027	0.0010		mg/L	1	9/16/2013 12:53:17 PM	9255
Uranium	0.056	0.0050	*	mg/L	5	9/16/2013 3:02:42 PM	9255
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/17/2013 6:31:08 PM	9344
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Toluene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Ethylbenzene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Methyl tert-butyl ether (MTBE)	1300	10		µg/L	10	9/6/2013 10:05:40 PM	R13159
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Naphthalene	ND	2.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
1-Methylnaphthalene	ND	4.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
2-Methylnaphthalene	ND	4.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Acetone	ND	10		µg/L	1	9/6/2013 10:34:22 PM	R13159
Bromobenzene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Bromodichloromethane	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Bromoform	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Bromomethane	ND	3.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
2-Butanone	ND	10		µg/L	1	9/6/2013 10:34:22 PM	R13159
Carbon disulfide	ND	10		µg/L	1	9/6/2013 10:34:22 PM	R13159
Carbon Tetrachloride	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Chlorobenzene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Chloroethane	ND	2.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Chloroform	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Chloromethane	ND	3.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
2-Chlorotoluene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
4-Chlorotoluene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
cis-1,2-DCE	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 11:00:00 AM

Lab ID: 1309184-003

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Dibromochloromethane	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Dibromomethane	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
1,1-Dichloroethane	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
1,1-Dichloroethene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
1,2-Dichloropropane	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
1,3-Dichloropropane	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
2,2-Dichloropropane	ND	2.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
1,1-Dichloropropene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Hexachlorobutadiene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
2-Hexanone	ND	10		µg/L	1	9/6/2013 10:34:22 PM	R13159
Isopropylbenzene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
4-Isopropyltoluene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
4-Methyl-2-pentanone	ND	10		µg/L	1	9/6/2013 10:34:22 PM	R13159
Methylene Chloride	ND	3.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
n-Butylbenzene	ND	3.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
n-Propylbenzene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
sec-Butylbenzene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Styrene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
tert-Butylbenzene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
trans-1,2-DCE	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Trichlorofluoromethane	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Vinyl chloride	ND	1.0		µg/L	1	9/6/2013 10:34:22 PM	R13159
Xylenes, Total	ND	1.5		µg/L	1	9/6/2013 10:34:22 PM	R13159
Surr: 1,2-Dichloroethane-d4	86.1	70-130		%REC	1	9/6/2013 10:34:22 PM	R13159

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1309184**

Date Reported: **9/23/2013**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 11:00:00 AM

Lab ID: 1309184-003

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	9/6/2013 10:34:22 PM	R13159
Surr: Dibromofluoromethane	104	70-130		%REC	1	9/6/2013 10:34:22 PM	R13159
Surr: Toluene-d8	102	70-130		%REC	1	9/6/2013 10:34:22 PM	R13159

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-52

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 11:55:00 AM

Lab ID: 1309184-004

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/13/2013 3:46:20 PM	9202
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/13/2013 3:46:20 PM	9202
Surr: DNOP	115	70.1-140		%REC	1	9/13/2013 3:46:20 PM	9202
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/9/2013 6:44:52 PM	R13246
Surr: BFB	94.5	51.5-151		%REC	1	9/9/2013 6:44:52 PM	R13246
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.50	0.10		mg/L	1	9/6/2013 4:25:58 PM	R13226
Chloride	27	10		mg/L	20	9/6/2013 4:38:23 PM	R13226
Bromide	0.17	0.10		mg/L	1	9/6/2013 4:25:58 PM	R13226
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/6/2013 4:25:58 PM	R13226
Sulfate	140	10		mg/L	20	9/6/2013 4:38:23 PM	R13226
Nitrate+Nitrite as N	4.6	1.0		mg/L	5	9/7/2013 1:07:09 AM	R13226
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.026	0.0020		mg/L	1	9/10/2013 5:36:19 PM	R13275
Cadmium	ND	0.0020		mg/L	1	9/10/2013 5:36:19 PM	R13275
Calcium	4.4	1.0		mg/L	1	9/10/2013 5:36:19 PM	R13275
Chromium	ND	0.0060		mg/L	1	9/10/2013 5:36:19 PM	R13275
Copper	ND	0.0060		mg/L	1	9/10/2013 5:36:19 PM	R13275
Iron	0.063	0.020		mg/L	1	9/10/2013 5:36:19 PM	R13275
Magnesium	ND	1.0		mg/L	1	9/10/2013 5:36:19 PM	R13275
Manganese	0.038	0.0020		mg/L	1	9/10/2013 5:36:19 PM	R13275
Potassium	2.2	1.0		mg/L	1	9/10/2013 5:36:19 PM	R13275
Silver	ND	0.0050		mg/L	1	9/10/2013 5:36:19 PM	R13275
Sodium	230	5.0		mg/L	5	9/12/2013 10:53:27 AM	R13332
Zinc	0.016	0.010		mg/L	1	9/10/2013 5:36:19 PM	R13275
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.029	0.0020		mg/L	1	9/12/2013 3:53:01 PM	9255
Cadmium	ND	0.0020		mg/L	1	9/12/2013 3:53:01 PM	9255
Chromium	ND	0.0060		mg/L	1	9/12/2013 3:53:01 PM	9255
Copper	ND	0.0060		mg/L	1	9/12/2013 3:53:01 PM	9255
Iron	0.22	0.020		mg/L	1	9/12/2013 3:53:01 PM	9255
Manganese	0.043	0.0020		mg/L	1	9/12/2013 3:53:01 PM	9255
Silver	ND	0.0050		mg/L	1	9/12/2013 3:53:01 PM	9255
Zinc	ND	0.010		mg/L	1	9/12/2013 3:53:01 PM	9255
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/17/2013 2:46:18 PM	R13428

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-52

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 11:55:00 AM

Lab ID: 1309184-004

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	9/17/2013 2:46:18 PM	R13428
Selenium	ND	0.0050		mg/L	5	9/17/2013 2:46:18 PM	R13428
Uranium	0.011	0.010		mg/L	10	9/19/2013 2:45:34 PM	R13495
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	9/16/2013 12:55:40 PM	9255
Lead	ND	0.0010		mg/L	1	9/16/2013 12:55:40 PM	9255
Selenium	ND	0.0010		mg/L	1	9/16/2013 12:55:40 PM	9255
Uranium	0.011	0.0010		mg/L	1	9/16/2013 12:55:40 PM	9255
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/17/2013 6:32:53 PM	9344
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Acenaphthylene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Aniline	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Anthracene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Azobenzene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Benz(a)anthracene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Benzo(a)pyrene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Benzo(b)fluoranthene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Benzo(k)fluoranthene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Benzoic acid	ND	40		µg/L	1	9/10/2013 12:39:15 PM	9215
Benzyl alcohol	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Butyl benzyl phthalate	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Carbazole	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
4-Chloroaniline	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
2-Chloronaphthalene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
2-Chlorophenol	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Chrysene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Di-n-butyl phthalate	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Di-n-octyl phthalate	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-52

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 11:55:00 AM

Lab ID: 1309184-004

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Dibenzofuran	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
1,2-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
1,3-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
1,4-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Diethyl phthalate	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Dimethyl phthalate	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
2,4-Dichlorophenol	ND	20		µg/L	1	9/10/2013 12:39:15 PM	9215
2,4-Dimethylphenol	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/10/2013 12:39:15 PM	9215
2,4-Dinitrophenol	ND	20		µg/L	1	9/10/2013 12:39:15 PM	9215
2,4-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
2,6-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Fluoranthene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Fluorene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Hexachlorobenzene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Hexachlorobutadiene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Hexachloroethane	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Isophorone	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
1-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
2-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
2-Methylphenol	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
3+4-Methylphenol	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
N-Nitrosodimethylamine	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Naphthalene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
2-Nitroaniline	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
3-Nitroaniline	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
4-Nitroaniline	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Nitrobenzene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
2-Nitrophenol	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
4-Nitrophenol	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Pentachlorophenol	ND	20		µg/L	1	9/10/2013 12:39:15 PM	9215
Phenanthrene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Phenol	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-52

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 11:55:00 AM

Lab ID: 1309184-004

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Pyridine	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/10/2013 12:39:15 PM	9215
Surr: 2,4,6-Tribromophenol	64.3	41.5-117		%REC	1	9/10/2013 12:39:15 PM	9215
Surr: 2-Fluorobiphenyl	64.0	29.1-112		%REC	1	9/10/2013 12:39:15 PM	9215
Surr: 2-Fluorophenol	69.6	11.9-98.6		%REC	1	9/10/2013 12:39:15 PM	9215
Surr: 4-Terphenyl-d14	82.0	46-111		%REC	1	9/10/2013 12:39:15 PM	9215
Surr: Nitrobenzene-d5	72.9	34.9-112		%REC	1	9/10/2013 12:39:15 PM	9215
Surr: Phenol-d5	50.3	17.5-88.3		%REC	1	9/10/2013 12:39:15 PM	9215
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Toluene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Ethylbenzene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Methyl tert-butyl ether (MTBE)	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1,2,4-Trimethylbenzene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1,3,5-Trimethylbenzene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1,2-Dichloroethane (EDC)	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1,2-Dibromoethane (EDB)	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Naphthalene	ND	2.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1-Methylnaphthalene	ND	4.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
2-Methylnaphthalene	ND	4.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Acetone	ND	10	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Bromobenzene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Bromodichloromethane	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Bromoform	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Bromomethane	ND	3.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
2-Butanone	ND	10	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Carbon disulfide	ND	10	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Carbon Tetrachloride	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Chlorobenzene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Chloroethane	ND	2.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Chloroform	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Chloromethane	ND	3.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
2-Chlorotoluene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
4-Chlorotoluene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
cis-1,2-DCE	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
cis-1,3-Dichloropropene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-52

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 11:55:00 AM

Lab ID: 1309184-004

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	2.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Dibromochloromethane	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Dibromomethane	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1,2-Dichlorobenzene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1,3-Dichlorobenzene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1,4-Dichlorobenzene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Dichlorodifluoromethane	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1,1-Dichloroethane	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1,1-Dichloroethene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1,2-Dichloropropane	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1,3-Dichloropropane	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
2,2-Dichloropropane	ND	2.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1,1-Dichloropropene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Hexachlorobutadiene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
2-Hexanone	ND	10	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Isopropylbenzene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
4-Isopropyltoluene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
4-Methyl-2-pentanone	ND	10	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Methylene Chloride	ND	3.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
n-Butylbenzene	ND	3.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
n-Propylbenzene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
sec-Butylbenzene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Styrene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
tert-Butylbenzene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1,1,1,2-Tetrachloroethane	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1,1,2,2-Tetrachloroethane	ND	2.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Tetrachloroethene (PCE)	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
trans-1,2-DCE	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
trans-1,3-Dichloropropene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1,2,3-Trichlorobenzene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1,2,4-Trichlorobenzene	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1,1,1-Trichloroethane	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1,1,2-Trichloroethane	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Trichloroethene (TCE)	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Trichlorofluoromethane	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
1,2,3-Trichloropropane	ND	2.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Vinyl chloride	ND	1.0	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Xylenes, Total	ND	1.5	PP	µg/L	1	9/7/2013 12:29:04 AM	R13159
Surr: 1,2-Dichloroethane-d4	94.9	70-130	PP	%REC	1	9/7/2013 12:29:04 AM	R13159

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-52

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 11:55:00 AM

Lab ID: 1309184-004

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Surr: 4-Bromofluorobenzene	93.9	70-130	PP	%REC	1	9/7/2013 12:29:04 AM	R13159
Surr: Dibromofluoromethane	113	70-130	PP	%REC	1	9/7/2013 12:29:04 AM	R13159
Surr: Toluene-d8	98.8	70-130	PP	%REC	1	9/7/2013 12:29:04 AM	R13159
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JML
Conductivity	1000	0.010		µmhos/cm	1	9/6/2013 6:17:07 PM	R13145
SM4500-H+B: PH							Analyst: JML
pH	8.39	1.68	H	pH units	1	9/6/2013 6:17:07 PM	R13145

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-50

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 12:45:00 PM

Lab ID: 1309184-005

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/13/2013 4:08:33 PM	9202
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/13/2013 4:08:33 PM	9202
Surr: DNOP	122	70.1-140		%REC	1	9/13/2013 4:08:33 PM	9202
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050	P	mg/L	1	9/9/2013 7:13:33 PM	R13246
Surr: BFB	93.0	51.5-151	P	%REC	1	9/9/2013 7:13:33 PM	R13246
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.50	0.10		mg/L	1	9/6/2013 4:50:48 PM	R13226
Chloride	26	10		mg/L	20	9/6/2013 5:03:12 PM	R13226
Bromide	0.18	0.10		mg/L	1	9/6/2013 4:50:48 PM	R13226
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/6/2013 4:50:48 PM	R13226
Sulfate	140	10		mg/L	20	9/6/2013 5:03:12 PM	R13226
Nitrate+Nitrite as N	2.0	1.0		mg/L	5	9/7/2013 1:19:34 AM	R13226
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.042	0.0020		mg/L	1	9/10/2013 5:40:36 PM	R13275
Cadmium	ND	0.0020		mg/L	1	9/10/2013 5:40:36 PM	R13275
Calcium	22	1.0		mg/L	1	9/10/2013 5:40:36 PM	R13275
Chromium	ND	0.0060		mg/L	1	9/10/2013 5:40:36 PM	R13275
Copper	ND	0.0060		mg/L	1	9/10/2013 5:40:36 PM	R13275
Iron	ND	0.020		mg/L	1	9/10/2013 5:40:36 PM	R13275
Magnesium	3.5	1.0		mg/L	1	9/10/2013 5:40:36 PM	R13275
Manganese	0.10	0.0020	*	mg/L	1	9/10/2013 5:40:36 PM	R13275
Potassium	1.4	1.0		mg/L	1	9/10/2013 5:40:36 PM	R13275
Silver	ND	0.0050		mg/L	1	9/10/2013 5:40:36 PM	R13275
Sodium	220	5.0		mg/L	5	9/12/2013 10:57:01 AM	R13332
Zinc	ND	0.010		mg/L	1	9/10/2013 5:40:36 PM	R13275
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.058	0.0020		mg/L	1	9/12/2013 4:06:01 PM	9255
Cadmium	ND	0.0020		mg/L	1	9/12/2013 4:06:01 PM	9255
Chromium	ND	0.0060		mg/L	1	9/12/2013 4:06:01 PM	9255
Copper	ND	0.0060		mg/L	1	9/12/2013 4:06:01 PM	9255
Iron	0.18	0.020		mg/L	1	9/12/2013 4:06:01 PM	9255
Manganese	0.11	0.0020	*	mg/L	1	9/12/2013 4:06:01 PM	9255
Silver	ND	0.0050		mg/L	1	9/12/2013 4:06:01 PM	9255
Zinc	0.013	0.010		mg/L	1	9/12/2013 4:06:01 PM	9255
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/17/2013 2:48:58 PM	R13428

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-50

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 12:45:00 PM

Lab ID: 1309184-005

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	9/17/2013 2:48:58 PM	R13428
Selenium	ND	0.0050		mg/L	5	9/17/2013 2:48:58 PM	R13428
Uranium	ND	0.010		mg/L	10	9/19/2013 2:48:14 PM	R13495
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0018	0.0010		mg/L	1	9/16/2013 1:02:52 PM	9255
Lead	0.0021	0.0010		mg/L	1	9/16/2013 1:02:52 PM	9255
Selenium	ND	0.0010		mg/L	1	9/16/2013 1:02:52 PM	9255
Uranium	0.0084	0.0010		mg/L	1	9/16/2013 1:02:52 PM	9255
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/17/2013 6:38:21 PM	9344
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Acenaphthylene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Aniline	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Anthracene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Azobenzene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Benz(a)anthracene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Benzo(a)pyrene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Benzo(b)fluoranthene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Benzo(k)fluoranthene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Benzoic acid	ND	40		µg/L	1	9/10/2013 1:08:07 PM	9215
Benzyl alcohol	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Butyl benzyl phthalate	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Carbazole	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
4-Chloroaniline	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
2-Chloronaphthalene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
2-Chlorophenol	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Chrysene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Di-n-butyl phthalate	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Di-n-octyl phthalate	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-50

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 12:45:00 PM

Lab ID: 1309184-005

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Dibenzofuran	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
1,2-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
1,3-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
1,4-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Diethyl phthalate	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Dimethyl phthalate	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
2,4-Dichlorophenol	ND	20		µg/L	1	9/10/2013 1:08:07 PM	9215
2,4-Dimethylphenol	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/10/2013 1:08:07 PM	9215
2,4-Dinitrophenol	ND	20		µg/L	1	9/10/2013 1:08:07 PM	9215
2,4-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
2,6-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Fluoranthene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Fluorene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Hexachlorobenzene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Hexachlorobutadiene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Hexachloroethane	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Isophorone	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
1-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
2-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
2-Methylphenol	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
3+4-Methylphenol	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
N-Nitrosodimethylamine	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Naphthalene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
2-Nitroaniline	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
3-Nitroaniline	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
4-Nitroaniline	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Nitrobenzene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
2-Nitrophenol	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
4-Nitrophenol	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Pentachlorophenol	ND	20		µg/L	1	9/10/2013 1:08:07 PM	9215
Phenanthrene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Phenol	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-50

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 12:45:00 PM

Lab ID: 1309184-005

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Pyridine	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/10/2013 1:08:07 PM	9215
Surr: 2,4,6-Tribromophenol	66.8	41.5-117		%REC	1	9/10/2013 1:08:07 PM	9215
Surr: 2-Fluorobiphenyl	71.8	29.1-112		%REC	1	9/10/2013 1:08:07 PM	9215
Surr: 2-Fluorophenol	66.7	11.9-98.6		%REC	1	9/10/2013 1:08:07 PM	9215
Surr: 4-Terphenyl-d14	83.9	46-111		%REC	1	9/10/2013 1:08:07 PM	9215
Surr: Nitrobenzene-d5	77.8	34.9-112		%REC	1	9/10/2013 1:08:07 PM	9215
Surr: Phenol-d5	49.0	17.5-88.3		%REC	1	9/10/2013 1:08:07 PM	9215
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Toluene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Ethylbenzene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Naphthalene	ND	2.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1-Methylnaphthalene	ND	4.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
2-Methylnaphthalene	ND	4.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Acetone	ND	10		µg/L	1	9/7/2013 12:57:44 AM	R13159
Bromobenzene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Bromodichloromethane	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Bromoform	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Bromomethane	ND	3.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
2-Butanone	ND	10		µg/L	1	9/7/2013 12:57:44 AM	R13159
Carbon disulfide	ND	10		µg/L	1	9/7/2013 12:57:44 AM	R13159
Carbon Tetrachloride	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Chlorobenzene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Chloroethane	ND	2.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Chloroform	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Chloromethane	ND	3.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
2-Chlorotoluene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
4-Chlorotoluene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
cis-1,2-DCE	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-50

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 12:45:00 PM

Lab ID: 1309184-005

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Dibromochloromethane	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Dibromomethane	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1,1-Dichloroethane	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1,1-Dichloroethene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1,2-Dichloropropane	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1,3-Dichloropropane	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
2,2-Dichloropropane	ND	2.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1,1-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Hexachlorobutadiene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
2-Hexanone	ND	10		µg/L	1	9/7/2013 12:57:44 AM	R13159
Isopropylbenzene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
4-Isopropyltoluene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
4-Methyl-2-pentanone	ND	10		µg/L	1	9/7/2013 12:57:44 AM	R13159
Methylene Chloride	ND	3.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
n-Butylbenzene	ND	3.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
n-Propylbenzene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
sec-Butylbenzene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Styrene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
tert-Butylbenzene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
trans-1,2-DCE	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Trichlorofluoromethane	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Vinyl chloride	ND	1.0		µg/L	1	9/7/2013 12:57:44 AM	R13159
Xylenes, Total	ND	1.5		µg/L	1	9/7/2013 12:57:44 AM	R13159
Surr: 1,2-Dichloroethane-d4	92.3	70-130		%REC	1	9/7/2013 12:57:44 AM	R13159

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-50

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 12:45:00 PM

Lab ID: 1309184-005

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Surr: 4-Bromofluorobenzene	96.8	70-130		%REC	1	9/7/2013 12:57:44 AM	R13159
Surr: Dibromofluoromethane	112	70-130		%REC	1	9/7/2013 12:57:44 AM	R13159
Surr: Toluene-d8	101	70-130		%REC	1	9/7/2013 12:57:44 AM	R13159
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JML
Conductivity	1100	0.010		µmhos/cm	1	9/6/2013 6:21:20 PM	R13145
SM4500-H+B: PH							Analyst: JML
pH	8.36	1.68	H	pH units	1	9/6/2013 6:21:20 PM	R13145

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 2:40:00 PM

Lab ID: 1309184-006

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/13/2013 4:30:40 PM	9202
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/13/2013 4:30:40 PM	9202
Surr: DNOP	123	70.1-140		%REC	1	9/13/2013 4:30:40 PM	9202
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/9/2013 7:42:13 PM	R13246
Surr: BFB	93.6	51.5-151		%REC	1	9/9/2013 7:42:13 PM	R13246
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.28	0.10		mg/L	1	9/6/2013 5:40:26 PM	R13226
Chloride	28	10		mg/L	20	9/6/2013 5:52:51 PM	R13226
Bromide	0.39	0.10		mg/L	1	9/6/2013 5:40:26 PM	R13226
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/6/2013 5:40:26 PM	R13226
Sulfate	160	10		mg/L	20	9/6/2013 5:52:51 PM	R13226
Nitrate+Nitrite as N	2.6	1.0		mg/L	5	9/7/2013 1:31:58 AM	R13226
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.019	0.0020		mg/L	1	9/10/2013 5:44:51 PM	R13275
Cadmium	ND	0.0020		mg/L	1	9/10/2013 5:44:51 PM	R13275
Calcium	8.8	1.0		mg/L	1	9/10/2013 5:44:51 PM	R13275
Chromium	ND	0.0060		mg/L	1	9/10/2013 5:44:51 PM	R13275
Copper	ND	0.0060		mg/L	1	9/10/2013 5:44:51 PM	R13275
Iron	ND	0.020		mg/L	1	9/10/2013 5:44:51 PM	R13275
Magnesium	1.3	1.0		mg/L	1	9/10/2013 5:44:51 PM	R13275
Manganese	0.024	0.0020		mg/L	1	9/10/2013 5:44:51 PM	R13275
Potassium	2.2	1.0		mg/L	1	9/10/2013 5:44:51 PM	R13275
Silver	ND	0.0050		mg/L	1	9/10/2013 5:44:51 PM	R13275
Sodium	280	5.0		mg/L	5	9/12/2013 11:00:37 AM	R13332
Zinc	ND	0.010		mg/L	1	9/10/2013 5:44:51 PM	R13275
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.019	0.0020		mg/L	1	9/12/2013 4:10:17 PM	9255
Cadmium	ND	0.0020		mg/L	1	9/12/2013 4:10:17 PM	9255
Chromium	ND	0.0060		mg/L	1	9/12/2013 4:10:17 PM	9255
Copper	ND	0.0060		mg/L	1	9/12/2013 4:10:17 PM	9255
Iron	ND	0.020		mg/L	1	9/12/2013 4:10:17 PM	9255
Manganese	0.025	0.0020		mg/L	1	9/12/2013 4:10:17 PM	9255
Silver	ND	0.0050		mg/L	1	9/12/2013 4:10:17 PM	9255
Zinc	ND	0.010		mg/L	1	9/12/2013 4:10:17 PM	9255
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/17/2013 2:51:37 PM	R13428

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 2:40:00 PM

Lab ID: 1309184-006

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	9/17/2013 2:51:37 PM	R13428
Selenium	ND	0.0050		mg/L	5	9/17/2013 2:51:37 PM	R13428
Uranium	0.017	0.010		mg/L	10	9/19/2013 2:50:53 PM	R13495
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	9/16/2013 1:05:16 PM	9255
Lead	ND	0.0010		mg/L	1	9/16/2013 1:05:16 PM	9255
Selenium	ND	0.0010		mg/L	1	9/16/2013 1:05:16 PM	9255
Uranium	0.017	0.0010		mg/L	1	9/16/2013 1:05:16 PM	9255
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/17/2013 6:40:08 PM	9344
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Toluene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Ethylbenzene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Methyl tert-butyl ether (MTBE)	14	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Naphthalene	ND	2.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1-Methylnaphthalene	ND	4.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
2-Methylnaphthalene	ND	4.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Acetone	ND	10		µg/L	1	9/7/2013 1:26:21 AM	R13159
Bromobenzene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Bromodichloromethane	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Bromoform	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Bromomethane	ND	3.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
2-Butanone	ND	10		µg/L	1	9/7/2013 1:26:21 AM	R13159
Carbon disulfide	ND	10		µg/L	1	9/7/2013 1:26:21 AM	R13159
Carbon Tetrachloride	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Chlorobenzene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Chloroethane	ND	2.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Chloroform	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Chloromethane	ND	3.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
2-Chlorotoluene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
4-Chlorotoluene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
cis-1,2-DCE	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 2:40:00 PM

Lab ID: 1309184-006

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Dibromochloromethane	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Dibromomethane	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1,1-Dichloroethane	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1,1-Dichloroethene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1,2-Dichloropropane	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1,3-Dichloropropane	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
2,2-Dichloropropane	ND	2.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1,1-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Hexachlorobutadiene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
2-Hexanone	ND	10		µg/L	1	9/7/2013 1:26:21 AM	R13159
Isopropylbenzene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
4-Isopropyltoluene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
4-Methyl-2-pentanone	ND	10		µg/L	1	9/7/2013 1:26:21 AM	R13159
Methylene Chloride	ND	3.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
n-Butylbenzene	ND	3.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
n-Propylbenzene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
sec-Butylbenzene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Styrene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
tert-Butylbenzene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
trans-1,2-DCE	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Trichlorofluoromethane	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Vinyl chloride	ND	1.0		µg/L	1	9/7/2013 1:26:21 AM	R13159
Xylenes, Total	ND	1.5		µg/L	1	9/7/2013 1:26:21 AM	R13159
Surr: 1,2-Dichloroethane-d4	96.9	70-130		%REC	1	9/7/2013 1:26:21 AM	R13159

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1309184**

Date Reported: **9/23/2013**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 2:40:00 PM

Lab ID: 1309184-006

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 4-Bromofluorobenzene	97.6	70-130		%REC	1	9/7/2013 1:26:21 AM	R13159
Surr: Dibromofluoromethane	114	70-130		%REC	1	9/7/2013 1:26:21 AM	R13159
Surr: Toluene-d8	104	70-130		%REC	1	9/7/2013 1:26:21 AM	R13159

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 3:30:00 PM

Lab ID: 1309184-007

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/13/2013 4:52:55 PM	9202
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/13/2013 4:52:55 PM	9202
Surr: DNOP	122	70.1-140		%REC	1	9/13/2013 4:52:55 PM	9202
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	0.051	0.050		mg/L	1	9/9/2013 8:10:52 PM	R13246
Surr: BFB	101	51.5-151		%REC	1	9/9/2013 8:10:52 PM	R13246
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.19	0.10		mg/L	1	9/6/2013 6:05:15 PM	R13226
Chloride	1200	50	*	mg/L	100	9/13/2013 4:18:27 AM	R13348
Bromide	0.98	0.10		mg/L	1	9/6/2013 6:05:15 PM	R13226
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/6/2013 6:05:15 PM	R13226
Sulfate	180	10		mg/L	20	9/6/2013 6:17:39 PM	R13226
Nitrate+Nitrite as N	11	1.0	*	mg/L	5	9/7/2013 1:44:22 AM	R13226
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.082	0.0020		mg/L	1	9/10/2013 5:49:05 PM	R13275
Cadmium	ND	0.0020		mg/L	1	9/10/2013 5:49:05 PM	R13275
Calcium	170	5.0		mg/L	5	9/10/2013 5:51:13 PM	R13275
Chromium	ND	0.0060		mg/L	1	9/10/2013 5:49:05 PM	R13275
Copper	ND	0.0060		mg/L	1	9/10/2013 5:49:05 PM	R13275
Iron	ND	0.020		mg/L	1	9/10/2013 5:49:05 PM	R13275
Magnesium	26	1.0		mg/L	1	9/10/2013 5:49:05 PM	R13275
Manganese	0.12	0.0020	*	mg/L	1	9/10/2013 5:49:05 PM	R13275
Potassium	3.5	1.0		mg/L	1	9/10/2013 5:49:05 PM	R13275
Silver	ND	0.025		mg/L	5	9/10/2013 5:51:13 PM	R13275
Sodium	810	10		mg/L	10	9/12/2013 11:04:13 AM	R13332
Zinc	ND	0.010		mg/L	1	9/10/2013 5:49:05 PM	R13275
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.084	0.0020		mg/L	1	9/12/2013 4:14:38 PM	9255
Cadmium	ND	0.0020		mg/L	1	9/12/2013 4:14:38 PM	9255
Chromium	ND	0.0060		mg/L	1	9/12/2013 4:14:38 PM	9255
Copper	ND	0.0060		mg/L	1	9/12/2013 4:14:38 PM	9255
Iron	ND	0.020		mg/L	1	9/12/2013 4:14:38 PM	9255
Manganese	0.12	0.0020	*	mg/L	1	9/12/2013 4:14:38 PM	9255
Silver	ND	0.025		mg/L	5	9/12/2013 4:16:47 PM	9255
Zinc	ND	0.010		mg/L	1	9/12/2013 4:14:38 PM	9255
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/17/2013 2:54:16 PM	R13428

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 3:30:00 PM

Lab ID: 1309184-007

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	9/17/2013 2:54:16 PM	R13428
Selenium	0.011	0.0050		mg/L	5	9/17/2013 2:54:16 PM	R13428
Uranium	0.066	0.010	*	mg/L	10	9/19/2013 2:58:56 PM	R13495
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/16/2013 3:05:05 PM	9255
Lead	ND	0.0010		mg/L	1	9/16/2013 1:07:39 PM	9255
Selenium	0.011	0.0050		mg/L	5	9/16/2013 3:05:05 PM	9255
Uranium	0.061	0.0050	*	mg/L	5	9/16/2013 3:05:05 PM	9255
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/17/2013 6:41:55 PM	9344
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Acenaphthylene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Aniline	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Anthracene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Azobenzene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Benz(a)anthracene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Benzo(a)pyrene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Benzo(b)fluoranthene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Benzo(k)fluoranthene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Benzoic acid	ND	40		µg/L	1	9/10/2013 1:37:03 PM	9215
Benzyl alcohol	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Butyl benzyl phthalate	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Carbazole	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
4-Chloroaniline	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
2-Chloronaphthalene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
2-Chlorophenol	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Chrysene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Di-n-butyl phthalate	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Di-n-octyl phthalate	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 3:30:00 PM

Lab ID: 1309184-007

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Dibenzofuran	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
1,2-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
1,3-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
1,4-Dichlorobenzene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Diethyl phthalate	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Dimethyl phthalate	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
2,4-Dichlorophenol	ND	20		µg/L	1	9/10/2013 1:37:03 PM	9215
2,4-Dimethylphenol	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/10/2013 1:37:03 PM	9215
2,4-Dinitrophenol	ND	20		µg/L	1	9/10/2013 1:37:03 PM	9215
2,4-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
2,6-Dinitrotoluene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Fluoranthene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Fluorene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Hexachlorobenzene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Hexachlorobutadiene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Hexachloroethane	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Isophorone	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
1-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
2-Methylnaphthalene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
2-Methylphenol	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
3+4-Methylphenol	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
N-Nitrosodimethylamine	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Naphthalene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
2-Nitroaniline	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
3-Nitroaniline	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
4-Nitroaniline	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Nitrobenzene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
2-Nitrophenol	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
4-Nitrophenol	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Pentachlorophenol	ND	20		µg/L	1	9/10/2013 1:37:03 PM	9215
Phenanthrene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Phenol	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 3:30:00 PM

Lab ID: 1309184-007

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Pyridine	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/10/2013 1:37:03 PM	9215
Surr: 2,4,6-Tribromophenol	75.9	41.5-117		%REC	1	9/10/2013 1:37:03 PM	9215
Surr: 2-Fluorobiphenyl	78.6	29.1-112		%REC	1	9/10/2013 1:37:03 PM	9215
Surr: 2-Fluorophenol	73.1	11.9-98.6		%REC	1	9/10/2013 1:37:03 PM	9215
Surr: 4-Terphenyl-d14	91.1	46-111		%REC	1	9/10/2013 1:37:03 PM	9215
Surr: Nitrobenzene-d5	84.5	34.9-112		%REC	1	9/10/2013 1:37:03 PM	9215
Surr: Phenol-d5	58.2	17.5-88.3		%REC	1	9/10/2013 1:37:03 PM	9215
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Toluene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Ethylbenzene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Methyl tert-butyl ether (MTBE)	65	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Naphthalene	ND	2.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1-Methylnaphthalene	ND	4.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
2-Methylnaphthalene	ND	4.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Acetone	ND	10		µg/L	1	9/7/2013 2:23:35 AM	R13159
Bromobenzene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Bromodichloromethane	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Bromoform	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Bromomethane	ND	3.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
2-Butanone	ND	10		µg/L	1	9/7/2013 2:23:35 AM	R13159
Carbon disulfide	ND	10		µg/L	1	9/7/2013 2:23:35 AM	R13159
Carbon Tetrachloride	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Chlorobenzene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Chloroethane	ND	2.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Chloroform	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Chloromethane	ND	3.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
2-Chlorotoluene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
4-Chlorotoluene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
cis-1,2-DCE	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 3:30:00 PM

Lab ID: 1309184-007

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Dibromochloromethane	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Dibromomethane	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1,1-Dichloroethane	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1,1-Dichloroethene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1,2-Dichloropropane	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1,3-Dichloropropane	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
2,2-Dichloropropane	ND	2.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1,1-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Hexachlorobutadiene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
2-Hexanone	ND	10		µg/L	1	9/7/2013 2:23:35 AM	R13159
Isopropylbenzene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
4-Isopropyltoluene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
4-Methyl-2-pentanone	ND	10		µg/L	1	9/7/2013 2:23:35 AM	R13159
Methylene Chloride	ND	3.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
n-Butylbenzene	ND	3.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
n-Propylbenzene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
sec-Butylbenzene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Styrene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
tert-Butylbenzene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
trans-1,2-DCE	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Trichlorofluoromethane	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Vinyl chloride	ND	1.0		µg/L	1	9/7/2013 2:23:35 AM	R13159
Xylenes, Total	ND	1.5		µg/L	1	9/7/2013 2:23:35 AM	R13159
Surr: 1,2-Dichloroethane-d4	93.5	70-130		%REC	1	9/7/2013 2:23:35 AM	R13159

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 3:30:00 PM

Lab ID: 1309184-007

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	9/7/2013 2:23:35 AM	R13159
Surr: Dibromofluoromethane	112	70-130		%REC	1	9/7/2013 2:23:35 AM	R13159
Surr: Toluene-d8	102	70-130		%REC	1	9/7/2013 2:23:35 AM	R13159

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 4:45:00 PM

Lab ID: 1309184-008

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/13/2013 5:15:00 PM	9202
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/13/2013 5:15:00 PM	9202
Surr: DNOP	128	70.1-140		%REC	1	9/13/2013 5:15:00 PM	9202
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/9/2013 10:33:51 PM	R13246
Surr: BFB	91.4	51.5-151		%REC	1	9/9/2013 10:33:51 PM	R13246
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.30	0.10		mg/L	1	9/6/2013 6:30:04 PM	R13226
Chloride	66	10		mg/L	20	9/6/2013 6:42:29 PM	R13226
Bromide	0.22	0.10		mg/L	1	9/6/2013 6:30:04 PM	R13226
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	9/6/2013 6:30:04 PM	R13226
Sulfate	180	10		mg/L	20	9/6/2013 6:42:29 PM	R13226
Nitrate+Nitrite as N	29	1.0	*	mg/L	5	9/7/2013 1:56:46 AM	R13226
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.033	0.0020		mg/L	1	9/10/2013 5:53:29 PM	R13275
Cadmium	ND	0.0020		mg/L	1	9/10/2013 5:53:29 PM	R13275
Calcium	2.1	1.0		mg/L	1	9/10/2013 5:53:29 PM	R13275
Chromium	ND	0.0060		mg/L	1	9/10/2013 5:53:29 PM	R13275
Copper	ND	0.0060		mg/L	1	9/10/2013 5:53:29 PM	R13275
Iron	0.037	0.020		mg/L	1	9/10/2013 5:53:29 PM	R13275
Magnesium	ND	1.0		mg/L	1	9/10/2013 5:53:29 PM	R13275
Manganese	0.0062	0.0020		mg/L	1	9/10/2013 5:53:29 PM	R13275
Potassium	1.7	1.0		mg/L	1	9/10/2013 5:53:29 PM	R13275
Silver	ND	0.0050		mg/L	1	9/10/2013 5:53:29 PM	R13275
Sodium	310	5.0		mg/L	5	9/12/2013 11:07:40 AM	R13332
Zinc	ND	0.010		mg/L	1	9/10/2013 5:53:29 PM	R13275
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.037	0.0020		mg/L	1	9/12/2013 4:19:04 PM	9255
Cadmium	ND	0.0020		mg/L	1	9/12/2013 4:19:04 PM	9255
Chromium	ND	0.0060		mg/L	1	9/12/2013 4:19:04 PM	9255
Copper	ND	0.0060		mg/L	1	9/12/2013 4:19:04 PM	9255
Iron	0.37	0.020	*	mg/L	1	9/12/2013 4:19:04 PM	9255
Manganese	0.020	0.0020		mg/L	1	9/12/2013 4:19:04 PM	9255
Silver	ND	0.0050		mg/L	1	9/12/2013 4:19:04 PM	9255
Zinc	ND	0.010		mg/L	1	9/12/2013 4:19:04 PM	9255
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	9/17/2013 2:56:56 PM	R13428

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 4:45:00 PM

Lab ID: 1309184-008

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	9/17/2013 2:56:56 PM	R13428
Selenium	ND	0.0050		mg/L	5	9/17/2013 2:56:56 PM	R13428
Uranium	0.045	0.010	*	mg/L	10	9/19/2013 3:01:35 PM	R13495
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0011	0.0010		mg/L	1	9/16/2013 1:10:02 PM	9255
Lead	ND	0.0010		mg/L	1	9/16/2013 1:10:02 PM	9255
Selenium	0.0035	0.0010		mg/L	1	9/16/2013 1:10:02 PM	9255
Uranium	0.043	0.0010	*	mg/L	1	9/16/2013 1:10:02 PM	9255
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/17/2013 6:43:42 PM	9344
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Toluene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Ethylbenzene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Naphthalene	ND	2.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1-Methylnaphthalene	ND	4.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
2-Methylnaphthalene	ND	4.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Acetone	ND	10		µg/L	1	9/7/2013 3:20:46 AM	R13159
Bromobenzene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Bromodichloromethane	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Bromoform	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Bromomethane	ND	3.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
2-Butanone	ND	10		µg/L	1	9/7/2013 3:20:46 AM	R13159
Carbon disulfide	ND	10		µg/L	1	9/7/2013 3:20:46 AM	R13159
Carbon Tetrachloride	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Chlorobenzene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Chloroethane	ND	2.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Chloroform	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Chloromethane	ND	3.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
2-Chlorotoluene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
4-Chlorotoluene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
cis-1,2-DCE	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 4:45:00 PM

Lab ID: 1309184-008

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Dibromochloromethane	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Dibromomethane	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1,1-Dichloroethane	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1,1-Dichloroethene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1,2-Dichloropropane	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1,3-Dichloropropane	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
2,2-Dichloropropane	ND	2.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1,1-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Hexachlorobutadiene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
2-Hexanone	ND	10		µg/L	1	9/7/2013 3:20:46 AM	R13159
Isopropylbenzene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
4-Isopropyltoluene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
4-Methyl-2-pentanone	ND	10		µg/L	1	9/7/2013 3:20:46 AM	R13159
Methylene Chloride	ND	3.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
n-Butylbenzene	ND	3.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
n-Propylbenzene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
sec-Butylbenzene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Styrene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
tert-Butylbenzene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
trans-1,2-DCE	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Trichlorofluoromethane	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Vinyl chloride	ND	1.0		µg/L	1	9/7/2013 3:20:46 AM	R13159
Xylenes, Total	ND	1.5		µg/L	1	9/7/2013 3:20:46 AM	R13159
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%REC	1	9/7/2013 3:20:46 AM	R13159

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 4:45:00 PM

Lab ID: 1309184-008

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 4-Bromofluorobenzene	95.2	70-130		%REC	1	9/7/2013 3:20:46 AM	R13159
Surr: Dibromofluoromethane	110	70-130		%REC	1	9/7/2013 3:20:46 AM	R13159
Surr: Toluene-d8	97.8	70-130		%REC	1	9/7/2013 3:20:46 AM	R13159

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2013 Annual/Quarterly

Collection Date:

Lab ID: 1309184-010

Matrix: TRIP BLANK

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Toluene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Ethylbenzene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Naphthalene	ND	2.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1-Methylnaphthalene	ND	4.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
2-Methylnaphthalene	ND	4.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Acetone	ND	10		µg/L	1	9/7/2013 3:49:25 AM	R13159
Bromobenzene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Bromodichloromethane	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Bromoform	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Bromomethane	ND	3.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
2-Butanone	ND	10		µg/L	1	9/7/2013 3:49:25 AM	R13159
Carbon disulfide	ND	10		µg/L	1	9/7/2013 3:49:25 AM	R13159
Carbon Tetrachloride	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Chlorobenzene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Chloroethane	ND	2.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Chloroform	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Chloromethane	ND	3.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
2-Chlorotoluene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
4-Chlorotoluene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
cis-1,2-DCE	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Dibromochloromethane	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Dibromomethane	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1,1-Dichloroethane	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1,1-Dichloroethene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1,2-Dichloropropane	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1,3-Dichloropropane	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
2,2-Dichloropropane	ND	2.0		µg/L	1	9/7/2013 3:49:25 AM	R13159

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2013 Annual/Quarterly

Collection Date:

Lab ID: 1309184-010

Matrix: TRIP BLANK

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: cadg			
1,1-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Hexachlorobutadiene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
2-Hexanone	ND	10		µg/L	1	9/7/2013 3:49:25 AM	R13159
Isopropylbenzene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
4-Isopropyltoluene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
4-Methyl-2-pentanone	ND	10		µg/L	1	9/7/2013 3:49:25 AM	R13159
Methylene Chloride	ND	3.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
n-Butylbenzene	ND	3.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
n-Propylbenzene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
sec-Butylbenzene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Styrene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
tert-Butylbenzene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
trans-1,2-DCE	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Trichlorofluoromethane	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Vinyl chloride	ND	1.0		µg/L	1	9/7/2013 3:49:25 AM	R13159
Xylenes, Total	ND	1.5		µg/L	1	9/7/2013 3:49:25 AM	R13159
Surr: 1,2-Dichloroethane-d4	92.1	70-130		%REC	1	9/7/2013 3:49:25 AM	R13159
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	9/7/2013 3:49:25 AM	R13159
Surr: Dibromofluoromethane	108	70-130		%REC	1	9/7/2013 3:49:25 AM	R13159
Surr: Toluene-d8	102	70-130		%REC	1	9/7/2013 3:49:25 AM	R13159

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 8:30:00 AM

Lab ID: 1309184-011

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: JMP	
Benzene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Toluene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Ethylbenzene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Naphthalene	ND	2.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1-Methylnaphthalene	ND	4.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
2-Methylnaphthalene	ND	4.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Acetone	ND	10		µg/L	1	9/11/2013 3:30:15 PM	R13299
Bromobenzene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Bromodichloromethane	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Bromoform	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Bromomethane	ND	3.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
2-Butanone	ND	10		µg/L	1	9/11/2013 3:30:15 PM	R13299
Carbon disulfide	ND	10		µg/L	1	9/11/2013 3:30:15 PM	R13299
Carbon Tetrachloride	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Chlorobenzene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Chloroethane	ND	2.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Chloroform	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Chloromethane	ND	3.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
2-Chlorotoluene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
4-Chlorotoluene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
cis-1,2-DCE	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Dibromochloromethane	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Dibromomethane	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1,1-Dichloroethane	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1,1-Dichloroethene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1,2-Dichloropropane	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1,3-Dichloropropane	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
2,2-Dichloropropane	ND	2.0		µg/L	1	9/11/2013 3:30:15 PM	R13299

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309184

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 Annual/Quarterly

Collection Date: 9/4/2013 8:30:00 AM

Lab ID: 1309184-011

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
1,1-Dichloropropene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Hexachlorobutadiene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
2-Hexanone	ND	10		µg/L	1	9/11/2013 3:30:15 PM	R13299
Isopropylbenzene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
4-Isopropyltoluene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
4-Methyl-2-pentanone	ND	10		µg/L	1	9/11/2013 3:30:15 PM	R13299
Methylene Chloride	ND	3.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
n-Butylbenzene	ND	3.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
n-Propylbenzene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
sec-Butylbenzene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Styrene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
tert-Butylbenzene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
trans-1,2-DCE	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Trichlorofluoromethane	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Vinyl chloride	ND	1.0		µg/L	1	9/11/2013 3:30:15 PM	R13299
Xylenes, Total	ND	1.5		µg/L	1	9/11/2013 3:30:15 PM	R13299
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%REC	1	9/11/2013 3:30:15 PM	R13299
Surr: 4-Bromofluorobenzene	97.0	70-130		%REC	1	9/11/2013 3:30:15 PM	R13299
Surr: Dibromofluoromethane	99.4	70-130		%REC	1	9/11/2013 3:30:15 PM	R13299
Surr: Toluene-d8	97.2	70-130		%REC	1	9/11/2013 3:30:15 PM	R13299

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R13275	RunNo:	13275					
Prep Date:		Analysis Date:	9/10/2013	SeqNo:	377462	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R13275	RunNo:	13275					
Prep Date:		Analysis Date:	9/10/2013	SeqNo:	377463	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Calcium	51	1.0	50.00	0	101	85	115			
Chromium	0.51	0.0060	0.5000	0	101	85	115			
Copper	0.50	0.0060	0.5000	0	99.2	85	115			
Iron	0.52	0.020	0.5000	0	103	85	115			
Magnesium	51	1.0	50.00	0	101	85	115			
Manganese	0.49	0.0020	0.5000	0	97.5	85	115			
Potassium	50	1.0	50.00	0	99.3	85	115			
Silver	0.093	0.0050	0.1000	0	93.2	85	115			
Zinc	0.52	0.010	0.5000	0	104	85	115			

Sample ID	1309184-001FMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	OW-30	Batch ID:	R13275	RunNo:	13275					
Prep Date:		Analysis Date:	9/10/2013	SeqNo:	377561	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Calcium	320	5.0	250.0	56.12	107	70	130			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	1309184-001FMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	OW-30		Batch ID: R13275		RunNo: 13275					
Prep Date:			Analysis Date: 9/10/2013		SeqNo: 377562		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	320	5.0	250.0	56.12	106	70	130	0.418	20	

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R13332			RunNo: 13332					
Prep Date:		Analysis Date: 9/12/2013			SeqNo: 379061		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								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R13332		RunNo: 13332					
Prep Date:			Analysis Date: 9/12/2013		SeqNo: 379065		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	102	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.50	0.0060	0.5000	0	101	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.50	0.020	0.5000	0	99.3	85	115			
Magnesium	49	1.0	50.00	0	97.8	85	115			
Manganese	0.50	0.0020	0.5000	0	99.4	85	115			
Potassium	48	1.0	50.00	0	96.8	85	115			
Silver	0.089	0.0050	0.1000	0	89.4	85	115			
Sodium	49	1.0	50.00	0	97.6	85	115			
Zinc	0.51	0.010	0.5000	0	102	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	1309184-001FMS		SampType:	MS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	OW-30		Batch ID:	R13332		RunNo:	13332			
Prep Date:			Analysis Date:	9/12/2013		SeqNo:	379075		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.62	0.0020	0.5000	0.07990	108	70	130			
Cadmium	0.54	0.0020	0.5000	0	108	70	130			
Chromium	0.53	0.0060	0.5000	0	106	70	130			
Copper	0.57	0.0060	0.5000	0	114	70	130			
Iron	0.59	0.020	0.5000	0.03986	109	70	130			
Magnesium	73	1.0	50.00	14.80	117	70	130			
Manganese	0.56	0.0020	0.5000	0.02770	106	70	130			
Potassium	59	1.0	50.00	0	118	70	130			
Silver	0.090	0.0050	0.1000	0	89.7	70	130			
Zinc	0.55	0.010	0.5000	0.008940	108	70	130			

Sample ID	1309184-001FMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	OW-30		Batch ID:	R13332		RunNo:	13332			
Prep Date:			Analysis Date:	9/12/2013		SeqNo:	379076		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.60	0.0020	0.5000	0.07990	104	70	130	3.01	20	
Cadmium	0.53	0.0020	0.5000	0	106	70	130	2.22	20	
Chromium	0.52	0.0060	0.5000	0	104	70	130	1.95	20	
Copper	0.55	0.0060	0.5000	0	110	70	130	3.92	20	
Iron	0.56	0.020	0.5000	0.03986	103	70	130	5.27	20	
Magnesium	68	1.0	50.00	14.80	107	70	130	6.69	20	
Manganese	0.54	0.0020	0.5000	0.02770	102	70	130	3.17	20	
Potassium	54	1.0	50.00	0	109	70	130	7.67	20	
Silver	0.086	0.0050	0.1000	0	86.2	70	130	3.89	20	
Zinc	0.54	0.010	0.5000	0.008940	106	70	130	1.91	20	

Sample ID	1309184-001FMS		SampType:	MS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	OW-30		Batch ID:	R13332		RunNo:	13332			
Prep Date:			Analysis Date:	9/12/2013		SeqNo:	379078		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	650	5.0	250.0	356.1	118	70	130			E

Sample ID	1309184-001FMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	OW-30		Batch ID:	R13332		RunNo:	13332			
Prep Date:			Analysis Date:	9/12/2013		SeqNo:	379079		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	650	5.0	250.0	356.1	119	70	130	0.552	20	E

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	MB-9255		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 9255		RunNo: 13304					
Prep Date:	9/11/2013		Analysis Date: 9/11/2013		SeqNo: 378491		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID	LCS-9255		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 9255		RunNo: 13304					
Prep Date:	9/11/2013		Analysis Date: 9/11/2013		SeqNo: 378492		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0	105	85	115			
Cadmium	0.53	0.0020	0.5000	0	106	85	115			
Chromium	0.52	0.0060	0.5000	0	105	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Manganese	0.51	0.0020	0.5000	0	101	85	115			
Silver	0.091	0.0050	0.1000	0	91.2	85	115			

Sample ID	MB-9255		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 9255		RunNo: 13298					
Prep Date:	9/11/2013		Analysis Date: 9/11/2013		SeqNo: 378572		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Sample ID	LCS-9255		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 9255		RunNo: 13298					
Prep Date:	9/11/2013		Analysis Date: 9/11/2013		SeqNo: 378573		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.48	0.010	0.5000	0	96.0	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	1309184-008FMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	OW-1		Batch ID: R13428		RunNo: 13428					
Prep Date:			Analysis Date: 9/17/2013		SeqNo: 382020		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.12	0.0050	0.1250	0.001308	96.6	70	130			
Lead	0.13	0.0050	0.1250	.00008299	101	70	130			
Selenium	0.12	0.0050	0.1250	0.004665	93.9	70	130			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R13428		RunNo: 13428					
Prep Date:			Analysis Date: 9/17/2013		SeqNo: 382027		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	104	85	115			
Lead	0.026	0.0010	0.02500	0	102	85	115			
Selenium	0.026	0.0010	0.02500	0	105	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R13428		RunNo: 13428					
Prep Date:			Analysis Date: 9/17/2013		SeqNo: 382028		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.5	85	115			
Lead	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R13428		RunNo: 13428					
Prep Date:			Analysis Date: 9/17/2013		SeqNo: 382029		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.025	0.0010	0.02500	0	102	85	115			
Selenium	0.026	0.0010	0.02500	0	102	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R13428			RunNo: 13428					
Prep Date:		Analysis Date: 9/17/2013			SeqNo: 382030		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R13428			RunNo: 13428					
Prep Date:		Analysis Date: 9/17/2013			SeqNo: 382031			Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R13428			RunNo: 13428					
Prep Date:		Analysis Date: 9/17/2013			SeqNo: 382032		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	1309206-002AMS	SampType: MS			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID: R13495			RunNo: 13495					
Prep Date:		Analysis Date: 9/19/2013			SeqNo: 383978		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.039	0.0010	0.02500	0.01075	111	70	130			

Sample ID	1309206-002AMSD	SampType: MSD			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID: R13495			RunNo: 13495					
Prep Date:		Analysis Date: 9/19/2013			SeqNo: 383979		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.038	0.0010	0.02500	0.01075	108	70	130	2.47	20	

Sample ID	1309206-006AMS	SampType: MS			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID: R13495			RunNo: 13495					
Prep Date:		Analysis Date: 9/19/2013			SeqNo: 383983		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.028	0.0010	0.02500	0.001611	106	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R13495	RunNo:	13495					
Prep Date:		Analysis Date:	9/19/2013	SeqNo:	383984	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.027	0.0010	0.02500	0	108	85	115			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R13495	RunNo:	13495					
Prep Date:		Analysis Date:	9/19/2013	SeqNo:	383985	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	1309161-002ALLMS	SampType:	MSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	9255	RunNo:	13390					
Prep Date:	9/11/2013	Analysis Date:	9/16/2013	SeqNo:	380985	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.034	0.0010	0.02500	0.008948	98.9	70	130			

Sample ID	1309161-002ALLMS	SampType:	MSDLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	9255	RunNo:	13390					
Prep Date:	9/11/2013	Analysis Date:	9/16/2013	SeqNo:	380986	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.034	0.0010	0.02500	0.008948	98.7	70	130	0.164	20	

Sample ID	MB-9255	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	9255	RunNo:	13390					
Prep Date:	9/11/2013	Analysis Date:	9/16/2013	SeqNo:	381026	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	LLCS-9255	SampType:	LCSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	9255	RunNo:	13390					
Prep Date:	9/11/2013	Analysis Date:	9/16/2013	SeqNo:	381032	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.5	85	115			
Lead	0.025	0.0010	0.02500	0	98.4	85	115			
Selenium	0.024	0.0010	0.02500	0	95.0	85	115			
Uranium	0.025	0.0010	0.02500	0	101	85	115			

Sample ID	1307899-001BLLMS	SampType:	MSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	9255	RunNo:	13390					
Prep Date:	9/11/2013	Analysis Date:	9/16/2013	SeqNo:	381067	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.032	0.0010	0.02500	0.007856	96.0	70	130			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	MB-9344	SampType:	mblk	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	9344	RunNo:	13439					
Prep Date:	9/17/2013	Analysis Date:	9/17/2013	SeqNo:	382369	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-9344	SampType:	lcs	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	9344	RunNo:	13439					
Prep Date:	9/17/2013	Analysis Date:	9/17/2013	SeqNo:	382370	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.5	80	120			

Sample ID	1309391-001AMS	SampType:	ms	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	9344	RunNo:	13439					
Prep Date:	9/17/2013	Analysis Date:	9/17/2013	SeqNo:	382397	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.3	75	125			

Sample ID	1309391-001AMSD	SampType:	msd	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	9344	RunNo:	13439					
Prep Date:	9/17/2013	Analysis Date:	9/17/2013	SeqNo:	382398	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	95.4	75	125	0.898	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID A6	SampType: CCV_6		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13226		RunNo: 13226							
Prep Date:	Analysis Date: 9/6/2013		SeqNo: 376084		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.2	0.10	2.400	0	92.4	90	110			
Chloride	12	0.50	12.00	0	102	90	110			
Bromide	12	0.10	12.00	0	102	90	110			
Phosphorus, Orthophosphate (As P	11	0.50	12.00	0	93.4	90	110			
Sulfate	30	0.50	30.00	0	101	90	110			
Nitrate+Nitrite as N	13	0.20	12.00	0	105	90	110			

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R13226		RunNo: 13226							
Prep Date:	Analysis Date: 9/6/2013		SeqNo: 376086		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R13226		RunNo: 13226							
Prep Date:	Analysis Date: 9/6/2013		SeqNo: 376087		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.45	0.10	0.5000	0	90.6	90	110			
Chloride	4.7	0.50	5.000	0	93.8	90	110			
Bromide	2.4	0.10	2.500	0	95.9	90	110			
Phosphorus, Orthophosphate (As P	4.5	0.50	5.000	0	90.9	90	110			
Sulfate	9.2	0.50	10.00	0	91.9	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	96.5	90	110			

Sample ID 1309188-002BMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13226		RunNo: 13226							
Prep Date:	Analysis Date: 9/6/2013		SeqNo: 376089		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.76	0.10	0.5000	0.2932	92.4	76.9	114			
Chloride	19	0.50	5.000	13.21	107	89.9	119			
Bromide	2.6	0.10	2.500	0.1330	98.6	92	104			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	93.0	73.9	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	1309188-002BMS		SampType:	MS		TestCode:	EPA Method 300.0: Anions			
Client ID:	BatchQC		Batch ID:	R13226		RunNo:	13226			
Prep Date:			Analysis Date:	9/6/2013		SeqNo:	376089	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	5.3	0.20	3.500	1.712	102	90	110			

Sample ID	1309188-002BMSD		SampType:	MSD		TestCode:	EPA Method 300.0: Anions			
Client ID:	BatchQC		Batch ID:	R13226		RunNo:	13226			
Prep Date:			Analysis Date:	9/6/2013		SeqNo:	376090	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.74	0.10	0.5000	0.2932	90.0	76.9	114	1.64	20	
Chloride	19	0.50	5.000	13.21	107	89.9	119	0.163	20	
Bromide	2.6	0.10	2.500	0.1330	98.5	92	104	0.181	20	
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	93.1	73.9	120	0.123	20	
Nitrate+Nitrite as N	5.3	0.20	3.500	1.712	101	90	110	0.355	20	

Sample ID	1309200-001JMS		SampType:	MS		TestCode:	EPA Method 300.0: Anions			
Client ID:	BatchQC		Batch ID:	R13226		RunNo:	13226			
Prep Date:			Analysis Date:	9/6/2013		SeqNo:	376093	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.86	0.10	0.5000	0.4235	86.3	76.9	114			
Bromide	2.7	0.10	2.500	0.1883	99.2	92	104			
Phosphorus, Orthophosphate (As P	3.6	0.50	5.000	0	72.5	73.9	120			S

Sample ID	1309200-001JMSD		SampType:	MSD		TestCode:	EPA Method 300.0: Anions			
Client ID:	BatchQC		Batch ID:	R13226		RunNo:	13226			
Prep Date:			Analysis Date:	9/6/2013		SeqNo:	376094	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.81	0.10	0.5000	0.4235	76.7	76.9	114	5.82	20	S
Bromide	2.7	0.10	2.500	0.1883	98.7	92	104	0.488	20	
Phosphorus, Orthophosphate (As P	3.7	0.50	5.000	0	73.2	73.9	120	0.983	20	S

Sample ID	A4		SampType:	CCV_4		TestCode:	EPA Method 300.0: Anions			
Client ID:	BatchQC		Batch ID:	R13226		RunNo:	13226			
Prep Date:			Analysis Date:	9/6/2013		SeqNo:	376096	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.97	0.10	1.000	0	96.6	90	110			
Chloride	5.0	0.50	5.000	0	100	90	110			
Bromide	4.9	0.10	5.000	0	98.6	90	110			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	91.8	90	110			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID A4	SampType: CCV_4		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13226		RunNo: 13226							
Prep Date:	Analysis Date: 9/6/2013		SeqNo: 376096		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	12	0.50	12.50	0	96.5	90	110			
Nitrate+Nitrite as N	4.9	0.20	5.000	0	98.0	90	110			

Sample ID A5	SampType: CCV_5		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13226		RunNo: 13226							
Prep Date:	Analysis Date: 9/6/2013		SeqNo: 376108		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.10	1.600	0	101	90	110			
Chloride	7.9	0.50	8.000	0	98.3	90	110			
Bromide	8.0	0.10	8.000	0	100	90	110			
Phosphorus, Orthophosphate (As P	7.6	0.50	8.000	0	94.7	90	110			
Sulfate	20	0.50	20.00	0	98.3	90	110			
Nitrate+Nitrite as N	8.1	0.20	8.000	0	101	90	110			

Sample ID A6	SampType: CCV_6		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13226		RunNo: 13226							
Prep Date:	Analysis Date: 9/6/2013		SeqNo: 376120		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.5	0.10	2.400	0	104	90	110			
Chloride	12	0.50	12.00	0	103	90	110			
Bromide	12	0.10	12.00	0	102	90	110			
Phosphorus, Orthophosphate (As P	12	0.50	12.00	0	96.4	90	110			
Sulfate	30	0.50	30.00	0	101	90	110			
Nitrate+Nitrite as N	13	0.20	12.00	0	105	90	110			

Sample ID A5	SampType: CCV_5		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13226		RunNo: 13226							
Prep Date:	Analysis Date: 9/7/2013		SeqNo: 376144		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.10	1.600	0	99.5	90	110			
Chloride	7.7	0.50	8.000	0	96.6	90	110			
Bromide	7.9	0.10	8.000	0	98.6	90	110			
Phosphorus, Orthophosphate (As P	7.2	0.50	8.000	0	89.6	90	110			S
Sulfate	20	0.50	20.00	0	98.8	90	110			
Nitrate+Nitrite as N	8.0	0.20	8.000	0	99.8	90	110			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R13226			RunNo: 13226						
Prep Date:	Analysis Date: 9/7/2013			SeqNo: 376156			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.5	0.10	2.400	0	103	90	110			
Chloride	12	0.50	12.00	0	102	90	110			
Bromide	12	0.10	12.00	0	101	90	110			
Phosphorus, Orthophosphate (As P	11	0.50	12.00	0	93.0	90	110			
Sulfate	31	0.50	30.00	0	103	90	110			
Nitrate+Nitrite as N	12	0.20	12.00	0	104	90	110			

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R13226			RunNo: 13226						
Prep Date:	Analysis Date: 9/7/2013			SeqNo: 376164			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.98	0.10	1.000	0	97.9	90	110			
Chloride	4.6	0.50	5.000	0	93.0	90	110			
Bromide	4.8	0.10	5.000	0	96.3	90	110			
Phosphorus, Orthophosphate (As P	4.4	0.50	5.000	0	87.0	90	110			S
Sulfate	12	0.50	12.50	0	95.6	90	110			
Nitrate+Nitrite as N	4.8	0.20	5.000	0	96.4	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R13346			RunNo: 13346						
Prep Date:	Analysis Date: 9/12/2013			SeqNo: 379671			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: R13346			RunNo: 13346						
Prep Date:	Analysis Date: 9/12/2013			SeqNo: 379672			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.8	90	110			

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R13346			RunNo: 13346						
Prep Date:	Analysis Date: 9/12/2013			SeqNo: 379681			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	4.9	0.20	5.000	0	97.0	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID A5	SampType: CCV_5				TestCode: EPA Method 300.0: Anions					
Client ID: BatchQC	Batch ID: R13346				RunNo: 13346					
Prep Date:	Analysis Date: 9/12/2013				SeqNo: 379693		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	7.9	0.20	8.000	0	99.2	90	110			

Sample ID A6	SampType: CCV_6				TestCode: EPA Method 300.0: Anions					
Client ID: BatchQC	Batch ID: R13346				RunNo: 13346					
Prep Date:	Analysis Date: 9/13/2013				SeqNo: 379706		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	12	0.20	12.00	0	103	90	110			

Sample ID A4	SampType: CCV_4				TestCode: EPA Method 300.0: Anions					
Client ID: BatchQC	Batch ID: R13346				RunNo: 13346					
Prep Date:	Analysis Date: 9/13/2013				SeqNo: 379719		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	4.8	0.20	5.000	0	96.0	90	110			

Sample ID A5	SampType: CCV_5				TestCode: EPA Method 300.0: Anions					
Client ID: BatchQC	Batch ID: R13346				RunNo: 13346					
Prep Date:	Analysis Date: 9/13/2013				SeqNo: 379725		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	8.0	0.20	8.000	0	99.5	90	110			

Sample ID A5	SampType: CCV_5				TestCode: EPA Method 300.0: Anions					
Client ID: BatchQC	Batch ID: R13348				RunNo: 13348					
Prep Date:	Analysis Date: 9/12/2013				SeqNo: 379732		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	7.7	0.50	8.000	0	96.7	90	110			

Sample ID MB	SampType: MBLK				TestCode: EPA Method 300.0: Anions					
Client ID: PBW	Batch ID: R13348				RunNo: 13348					
Prep Date:	Analysis Date: 9/12/2013				SeqNo: 379734		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R13348		RunNo: 13348					
Prep Date:			Analysis Date: 9/12/2013		SeqNo: 379735		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.5	0.50	5.000	0	90.8	90	110			

Sample ID	1309427-001AMS		SampType: MS			TestCode: EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID: R13348			RunNo: 13348				
Prep Date:			Analysis Date: 9/12/2013			SeqNo: 379737		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	190	5.0	50.00	140.3	102	89.9	119			

Sample ID	1309427-001AMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R13348		RunNo: 13348					
Prep Date:			Analysis Date: 9/12/2013		SeqNo: 379738		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	190	5.0	50.00	140.3	102	89.9	119	0.154	20	

Sample ID	A6		SampType: CCV_6			TestCode: EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID: R13348			RunNo: 13348				
Prep Date:			Analysis Date: 9/12/2013			SeqNo: 379745		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	12	0.50	12.00	0	101	90	110			

Sample ID	A4		SampType: CCV_4			TestCode: EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID: R13348			RunNo: 13348				
Prep Date:			Analysis Date: 9/12/2013			SeqNo: 379757		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.0	90	110			

Sample ID	A5		SampType: CCV_5			TestCode: EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID: R13348			RunNo: 13348				
Prep Date:			Analysis Date: 9/12/2013			SeqNo: 379769		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	7.8	0.50	8.000	0	97.3	90	110			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R13348			RunNo: 13348						
Prep Date:	Analysis Date: 9/12/2013			SeqNo: 379781			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	12	0.50	12.00	0	101	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R13348			RunNo: 13348						
Prep Date:	Analysis Date: 9/12/2013			SeqNo: 379789			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R13348			RunNo: 13348						
Prep Date:	Analysis Date: 9/12/2013			SeqNo: 379790			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.0	90	110			

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R13348			RunNo: 13348						
Prep Date:	Analysis Date: 9/12/2013			SeqNo: 379793			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.9	90	110			

Sample ID A5	SampType: CCV_5			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R13348			RunNo: 13348						
Prep Date:	Analysis Date: 9/13/2013			SeqNo: 379805			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	7.7	0.50	8.000	0	96.7	90	110			

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R13348			RunNo: 13348						
Prep Date:	Analysis Date: 9/13/2013			SeqNo: 379818			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	12	0.50	12.00	0	101	90	110			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	A4	SampType:	CCV_4	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R13348	RunNo:	13348					
Prep Date:		Analysis Date:	9/13/2013	SeqNo:	379829	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.3	90	110			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	MB-9202	SampType: MBLK			TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW	Batch ID: 9202			RunNo: 13234					
Prep Date:	9/6/2013	Analysis Date: 9/9/2013			SeqNo: 376420		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		110	70.1	140			

Sample ID	LCS-9202		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 9202		RunNo: 13259					
Prep Date:	9/6/2013		Analysis Date: 9/10/2013		SeqNo: 377202		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.9	1.0	5.000	0	118	73.3	145			
Surr: DNOP	0.67		0.5000		134	70.1	140			

Sample ID	LCSD-9202	SampType: LCS			TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW	Batch ID: 9202			RunNo: 13259					
Prep Date:	9/6/2013	Analysis Date: 9/10/2013			SeqNo: 377203		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	117	73.3	145	1.53	0	
Surr: DNOP	0.65		0.5000		131	70.1	140	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R13246	RunNo:	13246					
Prep Date:		Analysis Date:	9/9/2013	SeqNo:	376802	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		92.8	51.5	151			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R13246	RunNo:	13246					
Prep Date:		Analysis Date:	9/9/2013	SeqNo:	376806	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	95.8	80	120			
Surr: BFB	20		20.00		102	51.5	151			

Sample ID	1309181-002AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R13246	RunNo:	13246					
Prep Date:		Analysis Date:	9/9/2013	SeqNo:	376811	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.9	0.50	5.000	0	98.4	67.7	128			
Surr: BFB	200		200.0		102	51.5	151			

Sample ID	1309181-002AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R13246	RunNo:	13246					
Prep Date:		Analysis Date:	9/9/2013	SeqNo:	376812	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.7	0.50	5.000	0	93.1	67.7	128	5.51	20	
Surr: BFB	210		200.0		106	51.5	151	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R13159			RunNo: 13159					
Prep Date:		Analysis Date: 9/6/2013			SeqNo: 375417		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	5mL rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R13159	RunNo:	13159					
Prep Date:		Analysis Date:	9/6/2013	SeqNo:	375417	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.7	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	11		10.00		114	70	130			
Surr: Toluene-d8	10		10.00		99.6	70	130			

Sample ID	100ng lcs 1	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R13159	RunNo:	13159					
Prep Date:		Analysis Date:	9/6/2013	SeqNo:	375419	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.7	70	130			
Toluene	18	1.0	20.00	0	91.0	82.2	124			
Chlorobenzene	19	1.0	20.00	0	94.4	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID 100ng lcs 1	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R13159			RunNo: 13159						
Prep Date:	Analysis Date: 9/6/2013			SeqNo: 375419		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	23	1.0	20.00	0	117	83.5	155			
Trichloroethene (TCE)	19	1.0	20.00	0	93.5	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.7	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.1	70	130			
Surr: Dibromofluoromethane	11		10.00		111	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID 1309130-003a ms	SampType: MS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: BatchQC	Batch ID: R13159			RunNo: 13159						
Prep Date:	Analysis Date: 9/6/2013			SeqNo: 375422		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	260	10	200.0	69.90	95.5	67.9	137			
Toluene	180	10	200.0	0	90.8	77	127			
Chlorobenzene	180	10	200.0	0	88.8	70	130			
1,1-Dichloroethene	210	10	200.0	0	106	66.5	131			
Trichloroethene (TCE)	180	10	200.0	0	90.9	66.3	134			
Surr: 1,2-Dichloroethane-d4	95		100.0		95.1	70	130			
Surr: 4-Bromofluorobenzene	99		100.0		99.2	70	130			
Surr: Dibromofluoromethane	110		100.0		109	70	130			
Surr: Toluene-d8	97		100.0		96.7	70	130			

Sample ID 1309130-003a msd	SampType: MSD			TestCode: EPA Method 8260B: VOLATILES						
Client ID: BatchQC	Batch ID: R13159			RunNo: 13159						
Prep Date:	Analysis Date: 9/6/2013			SeqNo: 375423		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	250	10	200.0	69.90	90.0	67.9	137	4.26	20	
Toluene	170	10	200.0	0	84.1	77	127	7.66	20	
Chlorobenzene	170	10	200.0	0	85.6	70	130	3.72	20	
1,1-Dichloroethene	200	10	200.0	0	99.2	66.5	131	6.69	20	
Trichloroethene (TCE)	180	10	200.0	0	88.5	66.3	134	2.75	20	
Surr: 1,2-Dichloroethane-d4	92		100.0		91.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	96		100.0		96.2	70	130	0	0	
Surr: Dibromofluoromethane	110		100.0		108	70	130	0	0	
Surr: Toluene-d8	94		100.0		94.2	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	5mL rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R13299	RunNo:	13299					
Prep Date:		Analysis Date:	9/11/2013	SeqNo:	378327	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R13299			RunNo: 13299					
Prep Date:		Analysis Date: 9/11/2013			SeqNo: 378327		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.9	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R13299			RunNo: 13299					
Prep Date:		Analysis Date: 9/11/2013			SeqNo: 378328		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130			
Toluene	22	1.0	20.00	0	111	82.2	124			
Chlorobenzene	21	1.0	20.00	0	106	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R13299			RunNo: 13299					
Prep Date:		Analysis Date: 9/11/2013			SeqNo: 378328		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	25	1.0	20.00	0	123	83.5	155			
Trichloroethene (TCE)	20	1.0	20.00	0	98.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.5		10.00		94.8	70	130			
Surr: Toluene-d8	9.8		10.00		98.1	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	mb-9215	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	9215	RunNo:	13271					
Prep Date:	9/9/2013	Analysis Date:	9/10/2013	SeqNo:	377254	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	40								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	mb-9215	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	9215	RunNo:	13271					
Prep Date:	9/9/2013	Analysis Date:	9/10/2013	SeqNo:	377254	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: 2,4,6-Tribromophenol	120		200.0		58.1	41.5	117			
Surr: 2-Fluorobiphenyl	59		100.0		58.6	29.1	112			
Surr: 2-Fluorophenol	110		200.0		54.8	11.9	98.6			
Surr: 4-Terphenyl-d14	78		100.0		77.7	46	111			
Surr: Nitrobenzene-d5	71		100.0		70.5	34.9	112			
Surr: Phenol-d5	87		200.0		43.4	17.5	88.3			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	Ics-9215	SampType: LCS			TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW	Batch ID: 9215			RunNo: 13271					
Prep Date:	9/9/2013	Analysis Date: 9/10/2013			SeqNo: 377255		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	63	10	100.0	0	63.4	53.3	92.5			
4-Chloro-3-methylphenol	140	10	200.0	0	71.3	55.9	93.9			
2-Chlorophenol	130	10	200.0	0	66.0	51.1	85.8			
1,4-Dichlorobenzene	65	10	100.0	0	64.7	41.5	86.7			
2,4-Dinitrotoluene	59	10	100.0	0	58.6	57.5	102			
N-Nitrosodi-n-propylamine	77	10	100.0	0	76.8	52.1	99.7			
4-Nitrophenol	60	10	200.0	0	30.2	27.2	53			
Pentachlorophenol	85	20	200.0	0	42.6	33.7	77.7			
Phenol	80	10	200.0	0	40.0	23.3	66.3			
Pyrene	82	10	100.0	0	82.2	57	88.7			
1,2,4-Trichlorobenzene	57	10	100.0	0	57.4	46.7	87.8			
Surr: 2,4,6-Tribromophenol	130		200.0		66.5	41.5	117			
Surr: 2-Fluorobiphenyl	63		100.0		62.7	29.1	112			
Surr: 2-Fluorophenol	110		200.0		54.0	11.9	98.6			
Surr: 4-Terphenyl-d14	77		100.0		76.8	46	111			
Surr: Nitrobenzene-d5	67		100.0		66.7	34.9	112			
Surr: Phenol-d5	85		200.0		42.4	17.5	88.3			

Sample ID	Icsd-9215		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 9215		RunNo: 13271					
Prep Date:	9/9/2013		Analysis Date: 9/10/2013		SeqNo: 377256		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	69	10	100.0	0	69.5	53.3	92.5	9.12	25	
4-Chloro-3-methylphenol	150	10	200.0	0	73.7	55.9	93.9	3.37	32.7	
2-Chlorophenol	150	10	200.0	0	73.6	51.1	85.8	11.0	20	
1,4-Dichlorobenzene	76	10	100.0	0	75.6	41.5	86.7	15.5	20	
2,4-Dinitrotoluene	63	10	100.0	0	63.1	57.5	102	7.40	29.9	
N-Nitrosodi-n-propylamine	88	10	100.0	0	88.0	52.1	99.7	13.6	23.1	
4-Nitrophenol	69	10	200.0	0	34.4	27.2	53	13.0	40.5	
Pentachlorophenol	96	20	200.0	0	48.2	33.7	77.7	12.4	37.3	
Phenol	94	10	200.0	0	46.8	23.3	66.3	15.6	20	
Pyrene	87	10	100.0	0	87.1	57	88.7	5.72	26.5	
1,2,4-Trichlorobenzene	65	10	100.0	0	64.7	46.7	87.8	11.9	27.2	
Surr: 2,4,6-Tribromophenol	150		200.0		76.1	41.5	117	0	0	
Surr: 2-Fluorobiphenyl	69		100.0		69.1	29.1	112	0	0	
Surr: 2-Fluorophenol	130		200.0		65.1	11.9	98.6	0	0	
Surr: 4-Terphenyl-d14	87		100.0		87.4	46	111	0	0	
Surr: Nitrobenzene-d5	70		100.0		69.8	34.9	112	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	lcsd-9215	SampType:	LCSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02	Batch ID:	9215	RunNo:	13271					
Prep Date:	9/9/2013	Analysis Date:	9/10/2013	SeqNo:	377256	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Phenol-d5	100		200.0		50.4	17.5	88.3	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	1309200-001j dup	SampType:	dup	TestCode:	SM2510B: Specific Conductance					
Client ID:	BatchQC	Batch ID:	R13145	RunNo:	13145					
Prep Date:		Analysis Date:	9/6/2013	SeqNo:	375324	Units:	µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	3000	0.010						0.757	20	

Sample ID	1309212-003d dup	SampType:	dup	TestCode:	SM2510B: Specific Conductance					
Client ID:	BatchQC	Batch ID:	R13145	RunNo:	13145					
Prep Date:		Analysis Date:	9/6/2013	SeqNo:	375331	Units:	µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	5400	0.010						0.0920	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309184

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID	1309200-001j dup	SampType:	dup	TestCode:	SM4500-H+B: pH					
Client ID:	BatchQC	Batch ID:	R13145	RunNo:	13145					
Prep Date:		Analysis Date:	9/6/2013	SeqNo:	375347	Units:	pH units			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.66	1.68								H

Sample ID	1309212-003d dup	SampType:	dup	TestCode:	SM4500-H+B: pH					
Client ID:	BatchQC	Batch ID:	R13145	RunNo:	13145					
Prep Date:		Analysis Date:	9/6/2013	SeqNo:	375352	Units:	pH units			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.61	1.68								H

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

Client Name: Western Refining Gallup

Work Order Number: 1309184

RcptNo: 1

Received by/date:	<u>QT</u> <u>09/05/13</u>		
Logged By:	Michelle Garcia	9/5/2013 1:24:00 PM	<i>Michelle Garcia</i>
Completed By:	Michelle Garcia	9/6/2013 9:51:40 AM	<i>Michelle Garcia</i>
Reviewed By:	<u>[Signature]</u> <u>09/06/13</u>		

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☒	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☒	No ☐	Not Present ☐
3. How was the sample delivered?	<u>Client</u>		

Log In

4. Was an attempt made to cool the samples?	Yes ☒	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☒	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☒	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☒	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☒	No ☒	
9. Was preservative added to bottles?	Yes ☒	No ☒	NA ☐
<u>FOR METALS ANALYSIS: ADDED INLANDS TO ONE FOR ACCEPTABLE PH. HELD IN LOGIN FOR 24 HOURS AFTER PRESERVATION</u>			
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? YES
Checked by: [Signature]

Special Handling (if applicable)

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

Person Notified:	<u>[Signature]</u>	Date:	<u>[Signature]</u>
By Whom:	<u>[Signature]</u>	Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	<u>[Signature]</u>		
Client Instructions:	<u>[Signature]</u>		

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Not Present			



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

October 10, 2013

Cheryl Johnson

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

RE: 2013 Annual

OrderNo.: 1309651

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 7 sample(s) on 9/17/2013 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 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-11

Project: 2013 Annual

Collection Date: 9/16/2013 12:28:00 PM

Lab ID: 1309651-001

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	2.6	0.10		mg/L	1	9/17/2013 2:40:25 PM	R13447
Chloride	81	10		mg/L	20	9/17/2013 2:52:49 PM	R13447
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	9/17/2013 2:40:25 PM	R13447
Bromide	0.20	0.10		mg/L	1	9/17/2013 2:40:25 PM	R13447
Nitrogen, Nitrate (As N)	0.34	0.10		mg/L	1	9/17/2013 2:40:25 PM	R13447
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	9/17/2013 2:40:25 PM	R13447
Sulfate	960	25		mg/L	50	9/19/2013 10:30:41 AM	R13485
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.0084	0.0020		mg/L	1	9/19/2013 5:27:31 PM	R13479
Cadmium	ND	0.0020		mg/L	1	9/19/2013 5:27:31 PM	R13479
Calcium	12	1.0		mg/L	1	9/19/2013 5:27:31 PM	R13479
Chromium	ND	0.0060		mg/L	1	9/19/2013 5:27:31 PM	R13479
Copper	ND	0.0060		mg/L	1	9/19/2013 5:27:31 PM	R13479
Iron	ND	0.020		mg/L	1	9/19/2013 5:27:31 PM	R13479
Magnesium	1.3	1.0		mg/L	1	9/19/2013 5:27:31 PM	R13479
Manganese	0.019	0.0020		mg/L	1	9/19/2013 5:27:31 PM	R13479
Potassium	2.2	1.0		mg/L	1	9/19/2013 5:27:31 PM	R13479
Silver	ND	0.0050		mg/L	1	9/19/2013 5:27:31 PM	R13479
Sodium	630	10		mg/L	10	9/26/2013 12:59:30 PM	R13649
Zinc	0.021	0.010		mg/L	1	9/27/2013 5:03:52 PM	R13674
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.0084	0.0020		mg/L	1	9/23/2013 4:44:17 PM	9408
Cadmium	ND	0.0020		mg/L	1	9/23/2013 4:44:17 PM	9408
Chromium	ND	0.0060		mg/L	1	9/23/2013 4:44:17 PM	9408
Copper	ND	0.0060		mg/L	1	9/26/2013 2:03:51 PM	9408
Iron	0.028	0.020		mg/L	1	9/23/2013 4:44:17 PM	9408
Manganese	0.019	0.0020		mg/L	1	9/23/2013 4:44:17 PM	9408
Silver	ND	0.0050		mg/L	1	9/23/2013 4:44:17 PM	9408
Zinc	ND	0.010		mg/L	1	10/1/2013 4:39:14 PM	9572
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0024	0.0010		mg/L	1	9/30/2013 2:10:48 PM	R13716
Lead	ND	0.0010		mg/L	1	9/30/2013 2:10:48 PM	R13716
Selenium	0.0024	0.0010		mg/L	1	9/30/2013 2:10:48 PM	R13716
Uranium	0.23	0.010	*	mg/L	10	9/30/2013 2:32:04 PM	R13716
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0023	0.0010		mg/L	1	10/1/2013 6:07:53 PM	9408
Lead	ND	0.0010		mg/L	1	10/1/2013 6:07:53 PM	9408

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-11

Project: 2013 Annual

Collection Date: 9/16/2013 12:28:00 PM

Lab ID: 1309651-001

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	0.0018	0.0010		mg/L	1	10/1/2013 6:07:53 PM	9408
Uranium	0.25	0.010	*	mg/L	10	10/2/2013 12:44:11 PM	9408
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/27/2013 2:24:17 PM	9524
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Acenaphthylene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Aniline	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Anthracene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Azobenzene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Benz(a)anthracene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Benzo(a)pyrene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Benzo(b)fluoranthene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Benzo(k)fluoranthene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Benzoic acid	ND	40		µg/L	1	9/19/2013 5:13:58 PM	9388
Benzyl alcohol	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Bis(2-ethylhexyl)phthalate	11	10		µg/L	1	9/19/2013 5:13:58 PM	9388
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Butyl benzyl phthalate	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Carbazole	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
4-Chloroaniline	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
2-Chloronaphthalene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
2-Chlorophenol	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Chrysene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Di-n-butyl phthalate	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Di-n-octyl phthalate	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Dibenzofuran	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
1,2-Dichlorobenzene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
1,3-Dichlorobenzene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
1,4-Dichlorobenzene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-11

Project: 2013 Annual

Collection Date: 9/16/2013 12:28:00 PM

Lab ID: 1309651-001

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Diethyl phthalate	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Dimethyl phthalate	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
2,4-Dichlorophenol	ND	20		µg/L	1	9/19/2013 5:13:58 PM	9388
2,4-Dimethylphenol	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/19/2013 5:13:58 PM	9388
2,4-Dinitrophenol	ND	20		µg/L	1	9/19/2013 5:13:58 PM	9388
2,4-Dinitrotoluene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
2,6-Dinitrotoluene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Fluoranthene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Fluorene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Hexachlorobenzene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Hexachlorobutadiene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Hexachloroethane	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Isophorone	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
1-Methylnaphthalene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
2-Methylnaphthalene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
2-Methylphenol	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
3+4-Methylphenol	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
N-Nitrosodimethylamine	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Naphthalene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
2-Nitroaniline	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
3-Nitroaniline	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
4-Nitroaniline	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Nitrobenzene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
2-Nitrophenol	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
4-Nitrophenol	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Pentachlorophenol	ND	20		µg/L	1	9/19/2013 5:13:58 PM	9388
Phenanthrene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Phenol	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Pyrene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Pyridine	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/19/2013 5:13:58 PM	9388
Surr: 2,4,6-Tribromophenol	68.8	41.5-117		%REC	1	9/19/2013 5:13:58 PM	9388

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-11

Project: 2013 Annual

Collection Date: 9/16/2013 12:28:00 PM

Lab ID: 1309651-001

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorobiphenyl	83.8	29.1-112		%REC	1	9/19/2013 5:13:58 PM	9388
Surr: 2-Fluorophenol	66.7	11.9-98.6		%REC	1	9/19/2013 5:13:58 PM	9388
Surr: 4-Terphenyl-d14	93.5	46-111		%REC	1	9/19/2013 5:13:58 PM	9388
Surr: Nitrobenzene-d5	78.9	34.9-112		%REC	1	9/19/2013 5:13:58 PM	9388
Surr: Phenol-d5	52.9	17.5-88.3		%REC	1	9/19/2013 5:13:58 PM	9388
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Toluene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Ethylbenzene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Naphthalene	ND	2.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1-Methylnaphthalene	ND	4.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
2-Methylnaphthalene	ND	4.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Acetone	ND	10		µg/L	1	9/17/2013 6:12:45 PM	R13431
Bromobenzene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Bromodichloromethane	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Bromoform	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Bromomethane	ND	3.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
2-Butanone	ND	10		µg/L	1	9/17/2013 6:12:45 PM	R13431
Carbon disulfide	ND	10		µg/L	1	9/17/2013 6:12:45 PM	R13431
Carbon Tetrachloride	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Chlorobenzene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Chloroethane	ND	2.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Chloroform	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Chloromethane	ND	3.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
2-Chlorotoluene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
4-Chlorotoluene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
cis-1,2-DCE	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Dibromochloromethane	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Dibromomethane	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-11

Project: 2013 Annual

Collection Date: 9/16/2013 12:28:00 PM

Lab ID: 1309651-001

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,1-Dichloroethane	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,1-Dichloroethene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,2-Dichloropropane	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,3-Dichloropropane	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
2,2-Dichloropropane	ND	2.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,1-Dichloropropene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Hexachlorobutadiene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
2-Hexanone	ND	10		µg/L	1	9/17/2013 6:12:45 PM	R13431
Isopropylbenzene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
4-Isopropyltoluene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
4-Methyl-2-pentanone	ND	10		µg/L	1	9/17/2013 6:12:45 PM	R13431
Methylene Chloride	ND	3.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
n-Butylbenzene	ND	3.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
n-Propylbenzene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
sec-Butylbenzene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Styrene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
tert-Butylbenzene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
trans-1,2-DCE	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Trichlorofluoromethane	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Vinyl chloride	ND	1.0		µg/L	1	9/17/2013 6:12:45 PM	R13431
Xylenes, Total	ND	1.5		µg/L	1	9/17/2013 6:12:45 PM	R13431
Surr: 1,2-Dichloroethane-d4	89.9	70-130		%REC	1	9/17/2013 6:12:45 PM	R13431
Surr: 4-Bromofluorobenzene	96.0	70-130		%REC	1	9/17/2013 6:12:45 PM	R13431
Surr: Dibromofluoromethane	95.4	70-130		%REC	1	9/17/2013 6:12:45 PM	R13431
Surr: Toluene-d8	96.1	70-130		%REC	1	9/17/2013 6:12:45 PM	R13431

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-2

Project: 2013 Annual

Collection Date: 9/16/2013 9:20:00 AM

Lab ID: 1309651-002

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.27	0.10		mg/L	1	9/17/2013 3:30:04 PM	R13447
Chloride	84	10		mg/L	20	9/17/2013 3:42:29 PM	R13447
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	9/17/2013 3:30:04 PM	R13447
Bromide	0.16	0.10		mg/L	1	9/17/2013 3:30:04 PM	R13447
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	9/17/2013 3:30:04 PM	R13447
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	9/17/2013 3:30:04 PM	R13447
Sulfate	1.7	0.50		mg/L	1	9/17/2013 3:30:04 PM	R13447
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	3.9	0.010	*	mg/L	5	9/26/2013 1:15:51 PM	R13649
Cadmium	ND	0.0020		mg/L	1	9/19/2013 5:29:45 PM	R13479
Calcium	130	5.0		mg/L	5	9/26/2013 1:15:51 PM	R13649
Chromium	ND	0.0060		mg/L	1	9/19/2013 5:29:45 PM	R13479
Copper	ND	0.0060		mg/L	1	9/19/2013 5:29:45 PM	R13479
Iron	11	0.40	*	mg/L	20	9/26/2013 1:17:52 PM	R13649
Magnesium	22	1.0		mg/L	1	9/19/2013 5:29:45 PM	R13479
Manganese	2.2	0.010	*	mg/L	5	9/26/2013 1:15:51 PM	R13649
Potassium	ND	1.0		mg/L	1	9/19/2013 5:29:45 PM	R13479
Silver	ND	0.10		mg/L	20	9/26/2013 1:17:52 PM	R13649
Sodium	190	5.0		mg/L	5	9/26/2013 1:15:51 PM	R13649
Zinc	ND	0.010		mg/L	1	9/27/2013 5:06:03 PM	R13674
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	3.9	0.010	*	mg/L	5	9/23/2013 5:00:08 PM	9408
Cadmium	ND	0.0020		mg/L	1	9/23/2013 4:58:01 PM	9408
Chromium	ND	0.0060		mg/L	1	9/23/2013 4:58:01 PM	9408
Copper	ND	0.0060		mg/L	1	9/26/2013 2:41:49 PM	9408
Iron	13	0.40	*	mg/L	20	9/27/2013 2:14:19 PM	9408
Manganese	2.3	0.010	*	mg/L	5	9/23/2013 5:00:08 PM	9408
Silver	ND	0.10		mg/L	20	9/26/2013 2:43:55 PM	9408
Zinc	0.026	0.010		mg/L	1	10/1/2013 4:42:19 PM	9572
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0057	0.0010		mg/L	1	9/30/2013 2:13:27 PM	R13716
Lead	ND	0.0010		mg/L	1	9/30/2013 2:13:27 PM	R13716
Selenium	0.0076	0.0010		mg/L	1	9/30/2013 2:13:27 PM	R13716
Uranium	ND	0.0010		mg/L	1	9/30/2013 2:13:27 PM	R13716
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0064	0.0010		mg/L	1	10/1/2013 6:10:16 PM	9408
Lead	0.0021	0.0010		mg/L	1	10/1/2013 6:10:16 PM	9408

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-2

Project: 2013 Annual

Collection Date: 9/16/2013 9:20:00 AM

Lab ID: 1309651-002

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	0.0074	0.0050		mg/L	5	10/2/2013 12:46:35 PM	9408
Uranium	ND	0.0010		mg/L	1	10/1/2013 6:10:16 PM	9408
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/27/2013 2:26:05 PM	9524
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Acenaphthylene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Aniline	220	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Anthracene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Azobenzene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Benz(a)anthracene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Benzo(a)pyrene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Benzo(b)fluoranthene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Benzo(k)fluoranthene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Benzoic acid	ND	40		µg/L	1	9/19/2013 5:42:54 PM	9388
Benzyl alcohol	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Butyl benzyl phthalate	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Carbazole	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
4-Chloroaniline	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
2-Chloronaphthalene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
2-Chlorophenol	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Chrysene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Di-n-butyl phthalate	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Di-n-octyl phthalate	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Dibenzofuran	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
1,2-Dichlorobenzene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
1,3-Dichlorobenzene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
1,4-Dichlorobenzene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-2

Project: 2013 Annual

Collection Date: 9/16/2013 9:20:00 AM

Lab ID: 1309651-002

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: DAM			
Diethyl phthalate	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Dimethyl phthalate	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
2,4-Dichlorophenol	ND	20		µg/L	1	9/19/2013 5:42:54 PM	9388
2,4-Dimethylphenol	150	10		µg/L	1	9/19/2013 5:42:54 PM	9388
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/19/2013 5:42:54 PM	9388
2,4-Dinitrophenol	ND	20		µg/L	1	9/19/2013 5:42:54 PM	9388
2,4-Dinitrotoluene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
2,6-Dinitrotoluene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Fluoranthene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Fluorene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Hexachlorobenzene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Hexachlorobutadiene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Hexachloroethane	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Isophorone	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
1-Methylnaphthalene	61	10		µg/L	1	9/19/2013 5:42:54 PM	9388
2-Methylnaphthalene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
2-Methylphenol	48	10		µg/L	1	9/19/2013 5:42:54 PM	9388
3+4-Methylphenol	220	10		µg/L	1	9/19/2013 5:42:54 PM	9388
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
N-Nitrosodimethylamine	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Naphthalene	65	10		µg/L	1	9/19/2013 5:42:54 PM	9388
2-Nitroaniline	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
3-Nitroaniline	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
4-Nitroaniline	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Nitrobenzene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
2-Nitrophenol	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
4-Nitrophenol	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Pentachlorophenol	ND	20		µg/L	1	9/19/2013 5:42:54 PM	9388
Phenanthrene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Phenol	95	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Pyrene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Pyridine	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/19/2013 5:42:54 PM	9388
Surr: 2,4,6-Tribromophenol	95.7	41.5-117		%REC	1	9/19/2013 5:42:54 PM	9388

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-2

Project: 2013 Annual

Collection Date: 9/16/2013 9:20:00 AM

Lab ID: 1309651-002

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorobiphenyl	88.4	29.1-112		%REC	1	9/19/2013 5:42:54 PM	9388
Surr: 2-Fluorophenol	26.7	11.9-98.6		%REC	1	9/19/2013 5:42:54 PM	9388
Surr: 4-Terphenyl-d14	97.5	46-111		%REC	1	9/19/2013 5:42:54 PM	9388
Surr: Nitrobenzene-d5	77.9	34.9-112		%REC	1	9/19/2013 5:42:54 PM	9388
Surr: Phenol-d5	62.3	17.5-88.3		%REC	1	9/19/2013 5:42:54 PM	9388
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	48000	1000		µg/L	1E	9/17/2013 11:26:47 PM	R13431
Toluene	3400	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
Ethylbenzene	870	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
Methyl tert-butyl ether (MTBE)	2800	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,2,4-Trimethylbenzene	130	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,3,5-Trimethylbenzene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,2-Dichloroethane (EDC)	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,2-Dibromoethane (EDB)	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
Naphthalene	ND	200		µg/L	100	9/17/2013 11:55:10 PM	R13431
1-Methylnaphthalene	ND	400		µg/L	100	9/17/2013 11:55:10 PM	R13431
2-Methylnaphthalene	ND	400		µg/L	100	9/17/2013 11:55:10 PM	R13431
Acetone	ND	1000		µg/L	100	9/17/2013 11:55:10 PM	R13431
Bromobenzene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
Bromodichloromethane	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
Bromoform	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
Bromomethane	ND	300		µg/L	100	9/17/2013 11:55:10 PM	R13431
2-Butanone	ND	1000		µg/L	100	9/17/2013 11:55:10 PM	R13431
Carbon disulfide	ND	1000		µg/L	100	9/17/2013 11:55:10 PM	R13431
Carbon Tetrachloride	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
Chlorobenzene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
Chloroethane	ND	200		µg/L	100	9/17/2013 11:55:10 PM	R13431
Chloroform	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
Chloromethane	ND	300		µg/L	100	9/17/2013 11:55:10 PM	R13431
2-Chlorotoluene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
4-Chlorotoluene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
cis-1,2-DCE	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
cis-1,3-Dichloropropene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,2-Dibromo-3-chloropropane	ND	200		µg/L	100	9/17/2013 11:55:10 PM	R13431
Dibromochloromethane	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
Dibromomethane	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,2-Dichlorobenzene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,3-Dichlorobenzene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,4-Dichlorobenzene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-2

Project: 2013 Annual

Collection Date: 9/16/2013 9:20:00 AM

Lab ID: 1309651-002

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
Dichlorodifluoromethane	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,1-Dichloroethane	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,1-Dichloroethene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,2-Dichloropropane	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,3-Dichloropropane	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
2,2-Dichloropropane	ND	200		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,1-Dichloropropene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
Hexachlorobutadiene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
2-Hexanone	ND	1000		µg/L	100	9/17/2013 11:55:10 PM	R13431
Isopropylbenzene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
4-Isopropyltoluene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
4-Methyl-2-pentanone	ND	1000		µg/L	100	9/17/2013 11:55:10 PM	R13431
Methylene Chloride	ND	300		µg/L	100	9/17/2013 11:55:10 PM	R13431
n-Butylbenzene	ND	300		µg/L	100	9/17/2013 11:55:10 PM	R13431
n-Propylbenzene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
sec-Butylbenzene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
Styrene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
tert-Butylbenzene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,1,1,2-Tetrachloroethane	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,1,2,2-Tetrachloroethane	ND	200		µg/L	100	9/17/2013 11:55:10 PM	R13431
Tetrachloroethene (PCE)	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
trans-1,2-DCE	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
trans-1,3-Dichloropropene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,2,3-Trichlorobenzene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,2,4-Trichlorobenzene	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,1,1-Trichloroethane	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,1,2-Trichloroethane	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
Trichloroethene (TCE)	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
Trichlorofluoromethane	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
1,2,3-Trichloropropane	ND	200		µg/L	100	9/17/2013 11:55:10 PM	R13431
Vinyl chloride	ND	100		µg/L	100	9/17/2013 11:55:10 PM	R13431
Xylenes, Total	2300	150		µg/L	100	9/17/2013 11:55:10 PM	R13431
Surr: 1,2-Dichloroethane-d4	89.3	70-130		%REC	100	9/17/2013 11:55:10 PM	R13431
Surr: 4-Bromofluorobenzene	92.0	70-130		%REC	100	9/17/2013 11:55:10 PM	R13431
Surr: Dibromofluoromethane	95.4	70-130		%REC	100	9/17/2013 11:55:10 PM	R13431
Surr: Toluene-d8	91.5	70-130		%REC	100	9/17/2013 11:55:10 PM	R13431

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-5

Project: 2013 Annual

Collection Date: 9/16/2013 10:00:00 AM

Lab ID: 1309651-003

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.89	0.10		mg/L	1	9/17/2013 3:54:54 PM	R13447
Chloride	5.6	0.50		mg/L	1	9/17/2013 3:54:54 PM	R13447
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	9/17/2013 3:54:54 PM	R13447
Bromide	ND	0.10		mg/L	1	9/17/2013 3:54:54 PM	R13447
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	9/17/2013 3:54:54 PM	R13447
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	9/17/2013 3:54:54 PM	R13447
Sulfate	ND	0.50		mg/L	1	9/17/2013 3:54:54 PM	R13447
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	2.5	0.010	*	mg/L	5	9/26/2013 1:22:12 PM	R13649
Cadmium	ND	0.0020		mg/L	1	9/19/2013 5:31:50 PM	R13479
Calcium	44	1.0		mg/L	1	9/19/2013 5:31:50 PM	R13479
Chromium	ND	0.0060		mg/L	1	9/19/2013 5:31:50 PM	R13479
Copper	ND	0.0060		mg/L	1	9/19/2013 5:31:50 PM	R13479
Iron	3.3	0.10	*	mg/L	5	9/26/2013 1:22:12 PM	R13649
Magnesium	7.5	1.0		mg/L	1	9/19/2013 5:31:50 PM	R13479
Manganese	0.61	0.0020	*	mg/L	1	9/19/2013 5:31:50 PM	R13479
Potassium	ND	1.0		mg/L	1	9/19/2013 5:31:50 PM	R13479
Silver	ND	0.0050		mg/L	1	9/19/2013 5:31:50 PM	R13479
Sodium	160	5.0		mg/L	5	9/26/2013 1:22:12 PM	R13649
Zinc	ND	0.010		mg/L	1	9/27/2013 5:08:07 PM	R13674
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	2.3	0.010	*	mg/L	5	9/23/2013 5:04:06 PM	9408
Cadmium	ND	0.0020		mg/L	1	9/23/2013 5:02:06 PM	9408
Chromium	ND	0.0060		mg/L	1	9/23/2013 5:02:06 PM	9408
Copper	ND	0.0060		mg/L	1	9/26/2013 2:46:17 PM	9408
Iron	4.0	0.10	*	mg/L	5	9/23/2013 5:04:06 PM	9408
Manganese	0.59	0.0020	*	mg/L	1	9/23/2013 5:02:06 PM	9408
Silver	ND	0.0050		mg/L	1	9/23/2013 5:02:06 PM	9408
Zinc	ND	0.010		mg/L	1	10/1/2013 4:43:50 PM	9572
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0020	0.0010		mg/L	1	9/30/2013 2:18:45 PM	R13716
Lead	ND	0.0010		mg/L	1	9/30/2013 2:18:45 PM	R13716
Selenium	ND	0.0010		mg/L	1	9/30/2013 2:18:45 PM	R13716
Uranium	ND	0.0010		mg/L	1	9/30/2013 2:18:45 PM	R13716
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0022	0.0010		mg/L	1	10/1/2013 6:12:39 PM	9408
Lead	ND	0.0010		mg/L	1	10/1/2013 6:12:39 PM	9408

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-5

Project: 2013 Annual

Collection Date: 9/16/2013 10:00:00 AM

Lab ID: 1309651-003

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	ND	0.0010		mg/L	1	10/1/2013 6:12:39 PM	9408
Uranium	ND	0.0010		mg/L	1	10/1/2013 6:12:39 PM	9408
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/27/2013 2:27:52 PM	9524
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Acenaphthylene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Aniline	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Anthracene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Azobenzene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Benz(a)anthracene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Benzo(a)pyrene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Benzo(b)fluoranthene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Benzo(k)fluoranthene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Benzoic acid	ND	40		µg/L	1	9/19/2013 6:11:51 PM	9388
Benzyl alcohol	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Butyl benzyl phthalate	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Carbazole	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
4-Chloroaniline	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
2-Chloronaphthalene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
2-Chlorophenol	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Chrysene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Di-n-butyl phthalate	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Di-n-octyl phthalate	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Dibenzofuran	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
1,2-Dichlorobenzene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
1,3-Dichlorobenzene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
1,4-Dichlorobenzene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-5

Project: 2013 Annual

Collection Date: 9/16/2013 10:00:00 AM

Lab ID: 1309651-003

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Diethyl phthalate	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Dimethyl phthalate	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
2,4-Dichlorophenol	ND	20		µg/L	1	9/19/2013 6:11:51 PM	9388
2,4-Dimethylphenol	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/19/2013 6:11:51 PM	9388
2,4-Dinitrophenol	ND	20		µg/L	1	9/19/2013 6:11:51 PM	9388
2,4-Dinitrotoluene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
2,6-Dinitrotoluene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Fluoranthene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Fluorene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Hexachlorobenzene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Hexachlorobutadiene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Hexachloroethane	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Isophorone	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
1-Methylnaphthalene	56	10		µg/L	1	9/19/2013 6:11:51 PM	9388
2-Methylnaphthalene	62	10		µg/L	1	9/19/2013 6:11:51 PM	9388
2-Methylphenol	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
3+4-Methylphenol	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
N-Nitrosodimethylamine	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Naphthalene	66	10		µg/L	1	9/19/2013 6:11:51 PM	9388
2-Nitroaniline	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
3-Nitroaniline	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
4-Nitroaniline	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Nitrobenzene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
2-Nitrophenol	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
4-Nitrophenol	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Pentachlorophenol	ND	20		µg/L	1	9/19/2013 6:11:51 PM	9388
Phenanthrene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Phenol	18	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Pyrene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Pyridine	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/19/2013 6:11:51 PM	9388
Surr: 2,4,6-Tribromophenol	61.7	41.5-117		%REC	1	9/19/2013 6:11:51 PM	9388

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-5

Project: 2013 Annual

Collection Date: 9/16/2013 10:00:00 AM

Lab ID: 1309651-003

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorobiphenyl	59.9	29.1-112		%REC	1	9/19/2013 6:11:51 PM	9388
Surr: 2-Fluorophenol	53.2	11.9-98.6		%REC	1	9/19/2013 6:11:51 PM	9388
Surr: 4-Terphenyl-d14	68.2	46-111		%REC	1	9/19/2013 6:11:51 PM	9388
Surr: Nitrobenzene-d5	57.1	34.9-112		%REC	1	9/19/2013 6:11:51 PM	9388
Surr: Phenol-d5	43.9	17.5-88.3		%REC	1	9/19/2013 6:11:51 PM	9388
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	370	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
Toluene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
Ethylbenzene	110	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,2,4-Trimethylbenzene	90	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,3,5-Trimethylbenzene	22	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
Naphthalene	120	20		µg/L	10	9/17/2013 8:34:03 PM	R13431
1-Methylnaphthalene	97	40		µg/L	10	9/17/2013 8:34:03 PM	R13431
2-Methylnaphthalene	130	40		µg/L	10	9/17/2013 8:34:03 PM	R13431
Acetone	ND	100		µg/L	10	9/17/2013 8:34:03 PM	R13431
Bromobenzene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
Bromodichloromethane	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
Bromoform	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
Bromomethane	ND	30		µg/L	10	9/17/2013 8:34:03 PM	R13431
2-Butanone	ND	100		µg/L	10	9/17/2013 8:34:03 PM	R13431
Carbon disulfide	ND	100		µg/L	10	9/17/2013 8:34:03 PM	R13431
Carbon Tetrachloride	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
Chlorobenzene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
Chloroethane	ND	20		µg/L	10	9/17/2013 8:34:03 PM	R13431
Chloroform	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
Chloromethane	ND	30		µg/L	10	9/17/2013 8:34:03 PM	R13431
2-Chlorotoluene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
4-Chlorotoluene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
cis-1,2-DCE	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
cis-1,3-Dichloropropene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	9/17/2013 8:34:03 PM	R13431
Dibromochloromethane	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
Dibromomethane	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,2-Dichlorobenzene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,3-Dichlorobenzene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,4-Dichlorobenzene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-5

Project: 2013 Annual

Collection Date: 9/16/2013 10:00:00 AM

Lab ID: 1309651-003

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
Dichlorodifluoromethane	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,1-Dichloroethane	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,1-Dichloroethene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,2-Dichloropropane	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,3-Dichloropropane	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
2,2-Dichloropropane	ND	20		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,1-Dichloropropene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
Hexachlorobutadiene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
2-Hexanone	ND	100		µg/L	10	9/17/2013 8:34:03 PM	R13431
Isopropylbenzene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
4-Isopropyltoluene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
4-Methyl-2-pentanone	ND	100		µg/L	10	9/17/2013 8:34:03 PM	R13431
Methylene Chloride	ND	30		µg/L	10	9/17/2013 8:34:03 PM	R13431
n-Butylbenzene	ND	30		µg/L	10	9/17/2013 8:34:03 PM	R13431
n-Propylbenzene	31	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
sec-Butylbenzene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
Styrene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
tert-Butylbenzene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	9/17/2013 8:34:03 PM	R13431
Tetrachloroethene (PCE)	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
trans-1,2-DCE	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
trans-1,3-Dichloropropene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,2,3-Trichlorobenzene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,2,4-Trichlorobenzene	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,1,1-Trichloroethane	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,1,2-Trichloroethane	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
Trichloroethene (TCE)	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
Trichlorofluoromethane	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
1,2,3-Trichloropropane	ND	20		µg/L	10	9/17/2013 8:34:03 PM	R13431
Vinyl chloride	ND	10		µg/L	10	9/17/2013 8:34:03 PM	R13431
Xylenes, Total	89	15		µg/L	10	9/17/2013 8:34:03 PM	R13431
Surr: 1,2-Dichloroethane-d4	94.4	70-130		%REC	10	9/17/2013 8:34:03 PM	R13431
Surr: 4-Bromofluorobenzene	86.4	70-130		%REC	10	9/17/2013 8:34:03 PM	R13431
Surr: Dibromofluoromethane	97.0	70-130		%REC	10	9/17/2013 8:34:03 PM	R13431
Surr: Toluene-d8	95.3	70-130		%REC	10	9/17/2013 8:34:03 PM	R13431

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-6

Project: 2013 Annual

Collection Date: 9/16/2013 10:50:00 AM

Lab ID: 1309651-004

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	ND	0.50		mg/L	5	9/17/2013 4:19:44 PM	R13447
Chloride	45	2.5		mg/L	5	9/17/2013 4:19:44 PM	R13447
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	9/17/2013 4:19:44 PM	R13447
Bromide	0.56	0.50		mg/L	5	9/17/2013 4:19:44 PM	R13447
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	9/17/2013 4:19:44 PM	R13447
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	9/17/2013 4:19:44 PM	R13447
Sulfate	ND	2.5		mg/L	5	9/17/2013 4:19:44 PM	R13447
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	3.6	0.020	*	mg/L	10	9/26/2013 1:26:22 PM	R13649
Cadmium	ND	0.0020		mg/L	1	9/19/2013 5:33:48 PM	R13479
Calcium	78	1.0		mg/L	1	9/19/2013 5:33:48 PM	R13479
Chromium	ND	0.0060		mg/L	1	9/19/2013 5:33:48 PM	R13479
Copper	ND	0.0060		mg/L	1	9/19/2013 5:33:48 PM	R13479
Iron	7.1	0.20	*	mg/L	10	9/26/2013 1:26:22 PM	R13649
Magnesium	14	1.0		mg/L	1	9/19/2013 5:33:48 PM	R13479
Manganese	0.87	0.0020	*	mg/L	1	9/19/2013 5:33:48 PM	R13479
Potassium	1.1	1.0		mg/L	1	9/19/2013 5:33:48 PM	R13479
Silver	ND	0.0050		mg/L	1	9/19/2013 5:33:48 PM	R13479
Sodium	270	10		mg/L	10	9/26/2013 1:26:22 PM	R13649
Zinc	0.032	0.010		mg/L	1	9/27/2013 5:10:05 PM	R13674
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	3.6	0.010	*	mg/L	5	9/23/2013 5:08:07 PM	9408
Cadmium	ND	0.0020		mg/L	1	9/23/2013 5:06:03 PM	9408
Chromium	ND	0.0060		mg/L	1	9/23/2013 5:06:03 PM	9408
Copper	ND	0.0060		mg/L	1	9/26/2013 2:48:16 PM	9408
Iron	11	0.40	*	mg/L	20	9/27/2013 2:16:41 PM	9408
Manganese	0.90	0.0020	*	mg/L	1	9/23/2013 5:06:03 PM	9408
Silver	ND	0.0050		mg/L	1	9/23/2013 5:06:03 PM	9408
Zinc	ND	0.010		mg/L	1	10/1/2013 4:45:26 PM	9572
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0096	0.0010		mg/L	1	9/30/2013 2:21:24 PM	R13716
Lead	0.0034	0.0010		mg/L	1	9/30/2013 2:21:24 PM	R13716
Selenium	0.0025	0.0010		mg/L	1	9/30/2013 2:21:24 PM	R13716
Uranium	ND	0.0010		mg/L	1	9/30/2013 2:21:24 PM	R13716
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.013	0.0010	*	mg/L	1	10/1/2013 6:19:53 PM	9408
Lead	0.0069	0.0010		mg/L	1	10/1/2013 6:19:53 PM	9408

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-6

Project: 2013 Annual

Collection Date: 9/16/2013 10:50:00 AM

Lab ID: 1309651-004

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	0.0015	0.0010		mg/L	1	10/1/2013 6:19:53 PM	9408
Uranium	ND	0.0010		mg/L	1	10/1/2013 6:19:53 PM	9408
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/27/2013 2:29:39 PM	9524
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Acenaphthylene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Aniline	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Anthracene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Azobenzene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Benz(a)anthracene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Benzo(a)pyrene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Benzo(b)fluoranthene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Benzo(k)fluoranthene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Benzoic acid	ND	40		µg/L	1	9/19/2013 6:40:43 PM	9388
Benzyl alcohol	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Butyl benzyl phthalate	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Carbazole	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
4-Chloroaniline	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
2-Chloronaphthalene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
2-Chlorophenol	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Chrysene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Di-n-butyl phthalate	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Di-n-octyl phthalate	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Dibenzofuran	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
1,2-Dichlorobenzene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
1,3-Dichlorobenzene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
1,4-Dichlorobenzene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-6

Project: 2013 Annual

Collection Date: 9/16/2013 10:50:00 AM

Lab ID: 1309651-004

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Diethyl phthalate	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Dimethyl phthalate	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
2,4-Dichlorophenol	ND	20		µg/L	1	9/19/2013 6:40:43 PM	9388
2,4-Dimethylphenol	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/19/2013 6:40:43 PM	9388
2,4-Dinitrophenol	ND	20		µg/L	1	9/19/2013 6:40:43 PM	9388
2,4-Dinitrotoluene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
2,6-Dinitrotoluene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Fluoranthene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Fluorene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Hexachlorobenzene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Hexachlorobutadiene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Hexachloroethane	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Isophorone	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
1-Methylnaphthalene	440	50		µg/L	5	9/19/2013 11:27:57 PM	9388
2-Methylnaphthalene	510	50		µg/L	5	9/19/2013 11:27:57 PM	9388
2-Methylphenol	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
3+4-Methylphenol	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
N-Nitrosodimethylamine	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Naphthalene	660	50		µg/L	5	9/19/2013 11:27:57 PM	9388
2-Nitroaniline	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
3-Nitroaniline	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
4-Nitroaniline	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Nitrobenzene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
2-Nitrophenol	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
4-Nitrophenol	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Pentachlorophenol	ND	20		µg/L	1	9/19/2013 6:40:43 PM	9388
Phenanthrene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Phenol	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Pyrene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Pyridine	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/19/2013 6:40:43 PM	9388
Surr: 2,4,6-Tribromophenol	106	41.5-117		%REC	1	9/19/2013 6:40:43 PM	9388

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-6

Project: 2013 Annual

Collection Date: 9/16/2013 10:50:00 AM

Lab ID: 1309651-004

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorobiphenyl	101	29.1-112		%REC	1	9/19/2013 6:40:43 PM	9388
Surr: 2-Fluorophenol	22.3	11.9-98.6		%REC	1	9/19/2013 6:40:43 PM	9388
Surr: 4-Terphenyl-d14	110	46-111		%REC	1	9/19/2013 6:40:43 PM	9388
Surr: Nitrobenzene-d5	97.1	34.9-112		%REC	1	9/19/2013 6:40:43 PM	9388
Surr: Phenol-d5	43.9	17.5-88.3		%REC	1	9/19/2013 6:40:43 PM	9388
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	680	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
Toluene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
Ethylbenzene	180	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,2,4-Trimethylbenzene	280	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,3,5-Trimethylbenzene	140	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
Naphthalene	480	100		µg/L	50	9/17/2013 10:29:45 PM	R13431
1-Methylnaphthalene	200	200		µg/L	50	9/17/2013 10:29:45 PM	R13431
2-Methylnaphthalene	270	200		µg/L	50	9/17/2013 10:29:45 PM	R13431
Acetone	ND	500		µg/L	50	9/17/2013 10:29:45 PM	R13431
Bromobenzene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
Bromodichloromethane	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
Bromoform	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
Bromomethane	ND	150		µg/L	50	9/17/2013 10:29:45 PM	R13431
2-Butanone	ND	500		µg/L	50	9/17/2013 10:29:45 PM	R13431
Carbon disulfide	ND	500		µg/L	50	9/17/2013 10:29:45 PM	R13431
Carbon Tetrachloride	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
Chlorobenzene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
Chloroethane	ND	100		µg/L	50	9/17/2013 10:29:45 PM	R13431
Chloroform	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
Chloromethane	ND	150		µg/L	50	9/17/2013 10:29:45 PM	R13431
2-Chlorotoluene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
4-Chlorotoluene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
cis-1,2-DCE	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
cis-1,3-Dichloropropene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	9/17/2013 10:29:45 PM	R13431
Dibromochloromethane	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
Dibromomethane	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,2-Dichlorobenzene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,3-Dichlorobenzene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,4-Dichlorobenzene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-6

Project: 2013 Annual

Collection Date: 9/16/2013 10:50:00 AM

Lab ID: 1309651-004

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
Dichlorodifluoromethane	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,1-Dichloroethane	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,1-Dichloroethene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,2-Dichloropropane	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,3-Dichloropropane	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
2,2-Dichloropropane	ND	100		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,1-Dichloropropene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
Hexachlorobutadiene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
2-Hexanone	ND	500		µg/L	50	9/17/2013 10:29:45 PM	R13431
Isopropylbenzene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
4-Isopropyltoluene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
4-Methyl-2-pentanone	ND	500		µg/L	50	9/17/2013 10:29:45 PM	R13431
Methylene Chloride	ND	150		µg/L	50	9/17/2013 10:29:45 PM	R13431
n-Butylbenzene	ND	150		µg/L	50	9/17/2013 10:29:45 PM	R13431
n-Propylbenzene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
sec-Butylbenzene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
Styrene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
tert-Butylbenzene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	9/17/2013 10:29:45 PM	R13431
Tetrachloroethene (PCE)	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
trans-1,2-DCE	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
trans-1,3-Dichloropropene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,2,3-Trichlorobenzene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,2,4-Trichlorobenzene	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,1,1-Trichloroethane	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,1,2-Trichloroethane	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
Trichloroethene (TCE)	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
Trichlorofluoromethane	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
1,2,3-Trichloropropane	ND	100		µg/L	50	9/17/2013 10:29:45 PM	R13431
Vinyl chloride	ND	50		µg/L	50	9/17/2013 10:29:45 PM	R13431
Xylenes, Total	1100	75		µg/L	50	9/17/2013 10:29:45 PM	R13431
Surr: 1,2-Dichloroethane-d4	92.1	70-130		%REC	50	9/17/2013 10:29:45 PM	R13431
Surr: 4-Bromofluorobenzene	89.3	70-130		%REC	50	9/17/2013 10:29:45 PM	R13431
Surr: Dibromofluoromethane	96.8	70-130		%REC	50	9/17/2013 10:29:45 PM	R13431
Surr: Toluene-d8	94.2	70-130		%REC	50	9/17/2013 10:29:45 PM	R13431

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-1

Project: 2013 Annual

Collection Date: 9/16/2013 2:45:00 PM

Lab ID: 1309651-005

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	ND	0.50		mg/L	5	9/17/2013 4:44:33 PM	R13447
Chloride	370	10		mg/L	20	9/17/2013 4:56:58 PM	R13447
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	9/17/2013 4:44:33 PM	R13447
Bromide	2.8	0.50		mg/L	5	9/17/2013 4:44:33 PM	R13447
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	9/17/2013 4:44:33 PM	R13447
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	9/17/2013 4:44:33 PM	R13447
Sulfate	ND	2.5		mg/L	5	9/17/2013 4:44:33 PM	R13447
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	5.3	0.020	*	mg/L	10	9/26/2013 1:30:28 PM	R13649
Cadmium	ND	0.0020		mg/L	1	9/19/2013 5:35:50 PM	R13479
Calcium	220	10		mg/L	10	9/26/2013 1:30:28 PM	R13649
Chromium	ND	0.0060		mg/L	1	9/19/2013 5:35:50 PM	R13479
Copper	ND	0.0060		mg/L	1	9/19/2013 5:35:50 PM	R13479
Iron	11	0.40	*	mg/L	20	9/26/2013 1:32:38 PM	R13649
Magnesium	39	1.0		mg/L	1	9/19/2013 5:35:50 PM	R13479
Manganese	3.5	0.020	*	mg/L	10	9/26/2013 1:30:28 PM	R13649
Potassium	1.3	1.0		mg/L	1	9/19/2013 5:35:50 PM	R13479
Silver	ND	0.050		mg/L	10	9/26/2013 1:30:28 PM	R13649
Sodium	240	10		mg/L	10	9/26/2013 1:30:28 PM	R13649
Zinc	0.017	0.010		mg/L	1	9/27/2013 5:12:04 PM	R13674
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	4.9	0.010	*	mg/L	5	9/23/2013 5:12:08 PM	9408
Cadmium	ND	0.0020		mg/L	1	9/23/2013 5:10:04 PM	9408
Chromium	0.0075	0.0060		mg/L	1	9/23/2013 5:10:04 PM	9408
Copper	0.014	0.0060		mg/L	1	9/26/2013 2:52:34 PM	9408
Iron	19	1.0	*	mg/L	50	9/27/2013 2:18:59 PM	9408
Manganese	3.3	0.010	*	mg/L	5	9/23/2013 5:12:08 PM	9408
Silver	ND	0.25		mg/L	50	9/26/2013 2:54:33 PM	9408
Zinc	0.044	0.010		mg/L	1	10/1/2013 4:47:00 PM	9572
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0082	0.0010		mg/L	1	9/30/2013 2:24:04 PM	R13716
Lead	ND	0.0010		mg/L	1	9/30/2013 2:24:04 PM	R13716
Selenium	0.012	0.0010		mg/L	1	9/30/2013 2:24:04 PM	R13716
Uranium	ND	0.0010		mg/L	1	9/30/2013 2:24:04 PM	R13716
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0096	0.0010		mg/L	1	10/1/2013 6:22:16 PM	9408
Lead	0.0053	0.0010		mg/L	1	10/1/2013 6:22:16 PM	9408

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-1

Project: 2013 Annual

Collection Date: 9/16/2013 2:45:00 PM

Lab ID: 1309651-005

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	0.010	0.0050		mg/L	5	10/2/2013 12:48:58 PM	9408
Uranium	0.0019	0.0010		mg/L	1	10/1/2013 6:22:16 PM	9408
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/27/2013 2:31:27 PM	9524
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Acenaphthylene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Aniline	89	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Anthracene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Azobenzene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Benz(a)anthracene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Benzo(a)pyrene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Benzo(b)fluoranthene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Benzo(k)fluoranthene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Benzoic acid	ND	40		µg/L	1	9/19/2013 7:09:34 PM	9388
Benzyl alcohol	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Butyl benzyl phthalate	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Carbazole	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
4-Chloroaniline	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
2-Chloronaphthalene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
2-Chlorophenol	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Chrysene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Di-n-butyl phthalate	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Di-n-octyl phthalate	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Dibenzofuran	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
1,2-Dichlorobenzene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
1,3-Dichlorobenzene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
1,4-Dichlorobenzene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-1

Project: 2013 Annual

Collection Date: 9/16/2013 2:45:00 PM

Lab ID: 1309651-005

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Diethyl phthalate	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Dimethyl phthalate	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
2,4-Dichlorophenol	ND	20		µg/L	1	9/19/2013 7:09:34 PM	9388
2,4-Dimethylphenol	87	10		µg/L	1	9/19/2013 7:09:34 PM	9388
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/19/2013 7:09:34 PM	9388
2,4-Dinitrophenol	ND	20		µg/L	1	9/19/2013 7:09:34 PM	9388
2,4-Dinitrotoluene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
2,6-Dinitrotoluene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Fluoranthene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Fluorene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Hexachlorobenzene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Hexachlorobutadiene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Hexachloroethane	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Isophorone	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
1-Methylnaphthalene	190	10		µg/L	1	9/19/2013 7:09:34 PM	9388
2-Methylnaphthalene	210	10		µg/L	1	9/19/2013 7:09:34 PM	9388
2-Methylphenol	140	10		µg/L	1	9/19/2013 7:09:34 PM	9388
3+4-Methylphenol	150	10		µg/L	1	9/19/2013 7:09:34 PM	9388
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
N-Nitrosodimethylamine	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Naphthalene	430	50		µg/L	5	9/19/2013 11:56:42 PM	9388
2-Nitroaniline	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
3-Nitroaniline	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
4-Nitroaniline	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Nitrobenzene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
2-Nitrophenol	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
4-Nitrophenol	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Pentachlorophenol	ND	20		µg/L	1	9/19/2013 7:09:34 PM	9388
Phenanthrene	11	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Phenol	100	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Pyrene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Pyridine	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/19/2013 7:09:34 PM	9388
Surr: 2,4,6-Tribromophenol	96.3	41.5-117		%REC	1	9/19/2013 7:09:34 PM	9388

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-1

Project: 2013 Annual

Collection Date: 9/16/2013 2:45:00 PM

Lab ID: 1309651-005

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorobiphenyl	99.1	29.1-112		%REC	1	9/19/2013 7:09:34 PM	9388
Surr: 2-Fluorophenol	0	11.9-98.6	S	%REC	1	9/19/2013 7:09:34 PM	9388
Surr: 4-Terphenyl-d14	92.0	46-111		%REC	1	9/19/2013 7:09:34 PM	9388
Surr: Nitrobenzene-d5	84.1	34.9-112		%REC	1	9/19/2013 7:09:34 PM	9388
Surr: Phenol-d5	74.6	17.5-88.3		%REC	1	9/19/2013 7:09:34 PM	9388
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	54000	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Toluene	35000	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Ethylbenzene	2400	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Methyl tert-butyl ether (MTBE)	2200	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,2,4-Trimethylbenzene	1300	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,3,5-Trimethylbenzene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,2-Dichloroethane (EDC)	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,2-Dibromoethane (EDB)	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Naphthalene	ND	2000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1-Methylnaphthalene	ND	4000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
2-Methylnaphthalene	ND	4000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Acetone	ND	10000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Bromobenzene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Bromodichloromethane	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Bromoform	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Bromomethane	ND	3000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
2-Butanone	ND	10000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Carbon disulfide	ND	10000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Carbon Tetrachloride	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Chlorobenzene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Chloroethane	ND	2000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Chloroform	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Chloromethane	ND	3000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
2-Chlorotoluene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
4-Chlorotoluene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
cis-1,2-DCE	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
cis-1,3-Dichloropropene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,2-Dibromo-3-chloropropane	ND	2000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Dibromochloromethane	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Dibromomethane	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,2-Dichlorobenzene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,3-Dichlorobenzene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,4-Dichlorobenzene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-1

Project: 2013 Annual

Collection Date: 9/16/2013 2:45:00 PM

Lab ID: 1309651-005

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
Dichlorodifluoromethane	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,1-Dichloroethane	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,1-Dichloroethene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,2-Dichloropropane	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,3-Dichloropropane	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
2,2-Dichloropropane	ND	2000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,1-Dichloropropene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Hexachlorobutadiene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
2-Hexanone	ND	10000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Isopropylbenzene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
4-Isopropyltoluene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
4-Methyl-2-pentanone	ND	10000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Methylene Chloride	ND	3000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
n-Butylbenzene	ND	3000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
n-Propylbenzene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
sec-Butylbenzene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Styrene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
tert-Butylbenzene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,1,1,2-Tetrachloroethane	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,1,2,2-Tetrachloroethane	ND	2000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Tetrachloroethene (PCE)	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
trans-1,2-DCE	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
trans-1,3-Dichloropropene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,2,3-Trichlorobenzene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,2,4-Trichlorobenzene	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,1,1-Trichloroethane	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,1,2-Trichloroethane	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Trichloroethene (TCE)	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Trichlorofluoromethane	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
1,2,3-Trichloropropane	ND	2000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Vinyl chloride	ND	1000		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Xylenes, Total	13000	1500		µg/L	1E	9/18/2013 12:52:26 AM	R13431
Surr: 1,2-Dichloroethane-d4	90.3	70-130		%REC	1E	9/18/2013 12:52:26 AM	R13431
Surr: 4-Bromofluorobenzene	88.9	70-130		%REC	1E	9/18/2013 12:52:26 AM	R13431
Surr: Dibromofluoromethane	95.7	70-130		%REC	1E	9/18/2013 12:52:26 AM	R13431
Surr: Toluene-d8	92.9	70-130		%REC	1E	9/18/2013 12:52:26 AM	R13431

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 Annual

Collection Date: 9/16/2013 7:30:00 AM

Lab ID: 1309651-006

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
Benzene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Toluene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Ethylbenzene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Naphthalene	ND	2.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1-Methylnaphthalene	ND	4.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
2-Methylnaphthalene	ND	4.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Acetone	ND	10		µg/L	1	9/17/2013 7:37:38 PM	R13431
Bromobenzene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Bromodichloromethane	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Bromoform	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Bromomethane	ND	3.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
2-Butanone	ND	10		µg/L	1	9/17/2013 7:37:38 PM	R13431
Carbon disulfide	ND	10		µg/L	1	9/17/2013 7:37:38 PM	R13431
Carbon Tetrachloride	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Chlorobenzene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Chloroethane	ND	2.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Chloroform	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Chloromethane	ND	3.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
2-Chlorotoluene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
4-Chlorotoluene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
cis-1,2-DCE	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Dibromochloromethane	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Dibromomethane	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1,1-Dichloroethane	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1,1-Dichloroethene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1,2-Dichloropropane	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1,3-Dichloropropane	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
2,2-Dichloropropane	ND	2.0		µg/L	1	9/17/2013 7:37:38 PM	R13431

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 Annual

Collection Date: 9/16/2013 7:30:00 AM

Lab ID: 1309651-006

Matrix: AQUEOUS

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
1,1-Dichloropropene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Hexachlorobutadiene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
2-Hexanone	ND	10		µg/L	1	9/17/2013 7:37:38 PM	R13431
Isopropylbenzene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
4-Isopropyltoluene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
4-Methyl-2-pentanone	ND	10		µg/L	1	9/17/2013 7:37:38 PM	R13431
Methylene Chloride	ND	3.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
n-Butylbenzene	ND	3.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
n-Propylbenzene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
sec-Butylbenzene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Styrene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
tert-Butylbenzene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
trans-1,2-DCE	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Trichlorofluoromethane	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Vinyl chloride	ND	1.0		µg/L	1	9/17/2013 7:37:38 PM	R13431
Xylenes, Total	ND	1.5		µg/L	1	9/17/2013 7:37:38 PM	R13431
Surr: 1,2-Dichloroethane-d4	93.0	70-130		%REC	1	9/17/2013 7:37:38 PM	R13431
Surr: 4-Bromofluorobenzene	92.2	70-130		%REC	1	9/17/2013 7:37:38 PM	R13431
Surr: Dibromofluoromethane	101	70-130		%REC	1	9/17/2013 7:37:38 PM	R13431
Surr: Toluene-d8	95.3	70-130		%REC	1	9/17/2013 7:37:38 PM	R13431

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2013 Annual

Collection Date:

Lab ID: 1309651-007

Matrix: TRIP BLANK

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
Benzene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Toluene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Ethylbenzene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Naphthalene	ND	2.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1-Methylnaphthalene	ND	4.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
2-Methylnaphthalene	ND	4.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Acetone	ND	10		µg/L	1	9/17/2013 8:05:49 PM	R13431
Bromobenzene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Bromodichloromethane	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Bromoform	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Bromomethane	ND	3.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
2-Butanone	ND	10		µg/L	1	9/17/2013 8:05:49 PM	R13431
Carbon disulfide	ND	10		µg/L	1	9/17/2013 8:05:49 PM	R13431
Carbon Tetrachloride	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Chlorobenzene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Chloroethane	ND	2.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Chloroform	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Chloromethane	ND	3.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
2-Chlorotoluene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
4-Chlorotoluene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
cis-1,2-DCE	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Dibromochloromethane	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Dibromomethane	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1,1-Dichloroethane	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1,1-Dichloroethene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1,2-Dichloropropane	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1,3-Dichloropropane	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
2,2-Dichloropropane	ND	2.0		µg/L	1	9/17/2013 8:05:49 PM	R13431

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309651

Date Reported: 10/10/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2013 Annual

Collection Date:

Lab ID: 1309651-007

Matrix: TRIP BLANK

Received Date: 9/17/2013 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
1,1-Dichloropropene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Hexachlorobutadiene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
2-Hexanone	ND	10		µg/L	1	9/17/2013 8:05:49 PM	R13431
Isopropylbenzene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
4-Isopropyltoluene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
4-Methyl-2-pentanone	ND	10		µg/L	1	9/17/2013 8:05:49 PM	R13431
Methylene Chloride	ND	3.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
n-Butylbenzene	ND	3.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
n-Propylbenzene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
sec-Butylbenzene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Styrene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
tert-Butylbenzene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
trans-1,2-DCE	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Trichlorofluoromethane	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Vinyl chloride	ND	1.0		µg/L	1	9/17/2013 8:05:49 PM	R13431
Xylenes, Total	ND	1.5		µg/L	1	9/17/2013 8:05:49 PM	R13431
Surr: 1,2-Dichloroethane-d4	91.3	70-130		%REC	1	9/17/2013 8:05:49 PM	R13431
Surr: 4-Bromofluorobenzene	94.0	70-130		%REC	1	9/17/2013 8:05:49 PM	R13431
Surr: Dibromofluoromethane	95.9	70-130		%REC	1	9/17/2013 8:05:49 PM	R13431
Surr: Toluene-d8	94.0	70-130		%REC	1	9/17/2013 8:05:49 PM	R13431

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309651

10-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB		SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	PBW		Batch ID:	R13479		RunNo:	13479			
Prep Date:			Analysis Date:	9/19/2013		SeqNo:	383437	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								

Sample ID	LCS		SampType:	LCS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	LCSW		Batch ID:	R13479		RunNo:	13479			
Prep Date:			Analysis Date:	9/19/2013		SeqNo:	383438	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0	104	85	115			
Cadmium	0.51	0.0020	0.5000	0	103	85	115			
Calcium	53	1.0	50.00	0	106	85	115			
Chromium	0.51	0.0060	0.5000	0	103	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.54	0.020	0.5000	0	107	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Manganese	0.50	0.0020	0.5000	0	100	85	115			
Potassium	51	1.0	50.00	0	102	85	115			
Silver	0.098	0.0050	0.1000	0	98.1	85	115			

Sample ID	MB		SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	PBW		Batch ID:	R13649		RunNo:	13649			
Prep Date:			Analysis Date:	9/26/2013		SeqNo:	388694	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Sodium	ND	1.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309651

10-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	LCSW		Batch ID: R13649			RunNo: 13649				
Prep Date:	Analysis Date: 9/26/2013			SeqNo: 388695		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	103	85	115			
Calcium	52	1.0	50.00	0	104	85	115			
Iron	0.53	0.020	0.5000	0	106	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Silver	0.090	0.0050	0.1000	0	89.7	85	115			
Sodium	51	1.0	50.00	0	103	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R13674			RunNo: 13674					
Prep Date:		Analysis Date: 9/27/2013			SeqNo: 389471		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R13674		RunNo: 13674					
Prep Date:			Analysis Date: 9/27/2013		SeqNo: 389472		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.52	0.010	0.5000	0	103	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309651

10-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB-9408		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 9408		RunNo: 13549					
Prep Date:	9/20/2013		Analysis Date: 9/23/2013		SeqNo: 385586		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								

Sample ID	LCS-9408		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 9408		RunNo: 13549					
Prep Date:	9/20/2013		Analysis Date: 9/23/2013		SeqNo: 385587		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.5	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.3	85	115			
Chromium	0.48	0.0060	0.5000	0	96.0	85	115			
Iron	0.48	0.020	0.5000	0	96.8	85	115			
Manganese	0.48	0.0020	0.5000	0	96.5	85	115			
Silver	0.088	0.0050	0.1000	0	88.5	85	115			

Sample ID	MB-9408		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 9408		RunNo: 13618					
Prep Date:	9/20/2013		Analysis Date: 9/25/2013		SeqNo: 387685		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								

Sample ID	LCS-9408		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 9408		RunNo: 13618					
Prep Date:	9/20/2013		Analysis Date: 9/25/2013		SeqNo: 387686		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.50	0.0060	0.5000	0	99.9	85	115			

Sample ID	MB-9408		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 9408		RunNo: 13649					
Prep Date:	9/20/2013		Analysis Date: 9/26/2013		SeqNo: 388777		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.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309651

10-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	LCS-9408		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 9408		RunNo: 13649					
Prep Date:	9/20/2013		Analysis Date: 9/26/2013		SeqNo: 388778		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.49	0.0060	0.5000	0	98.9	85	115			

Sample ID	MB-9572		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 9572		RunNo: 13757					
Prep Date:	10/1/2013		Analysis Date: 10/1/2013		SeqNo: 392500		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Sample ID	LCS-9572		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 9572		RunNo: 13757					
Prep Date:	10/1/2013		Analysis Date: 10/1/2013		SeqNo: 392501		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.50	0.010	0.5000	0	99.4	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309651

10-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	1309651-002EMS		SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	RW-2		Batch ID:	R13716		RunNo:	13716			
Prep Date:			Analysis Date:	9/30/2013		SeqNo:	391023		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.030	0.0010	0.02500	0.005730	96.2	70	130			
Lead	0.024	0.0010	0.02500	0.0002591	96.2	70	130			
Selenium	0.031	0.0010	0.02500	0.007610	92.2	70	130			
Uranium	0.027	0.0010	0.02500	0.0001140	106	70	130			

Sample ID	LCS		SampType:	LCS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	LCSW		Batch ID:	R13716		RunNo:	13716			
Prep Date:			Analysis Date:	9/30/2013		SeqNo:	391112		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.0	85	115			
Lead	0.025	0.0010	0.02500	0	99.1	85	115			
Selenium	0.024	0.0010	0.02500	0	96.5	85	115			
Uranium	0.024	0.0010	0.02500	0	96.4	85	115			

Sample ID	LCS		SampType:	LCS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	LCSW		Batch ID:	R13716		RunNo:	13716			
Prep Date:			Analysis Date:	9/30/2013		SeqNo:	391113		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.2	85	115			
Lead	0.024	0.0010	0.02500	0	95.2	85	115			
Selenium	0.024	0.0010	0.02500	0	96.7	85	115			
Uranium	0.025	0.0010	0.02500	0	99.1	85	115			

Sample ID	LCS		SampType:	LCS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	LCSW		Batch ID:	R13716		RunNo:	13716			
Prep Date:			Analysis Date:	9/30/2013		SeqNo:	391114		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.024	0.0010	0.02500	0	95.9	85	115			

Sample ID	LCS		SampType:	LCS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	LCSW		Batch ID:	R13716		RunNo:	13716			
Prep Date:			Analysis Date:	9/30/2013		SeqNo:	391115		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.024	0.0010	0.02500	0	95.8	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309651

10-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R13716	RunNo:	13716					
Prep Date:		Analysis Date:	9/30/2013	SeqNo:	391116	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R13716	RunNo:	13716					
Prep Date:		Analysis Date:	9/30/2013	SeqNo:	391117	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R13716	RunNo:	13716					
Prep Date:		Analysis Date:	9/30/2013	SeqNo:	391118	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R13716	RunNo:	13716					
Prep Date:		Analysis Date:	9/30/2013	SeqNo:	391119	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309651

10-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	LLLCS-9408			SampType:	LCSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC			Batch ID:	9408		RunNo:	13688			
Prep Date:	9/20/2013			Analysis Date:	9/27/2013		SeqNo:	390000		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.025	0.0010	0.02500	0	98.9	85	115				
Lead	0.026	0.0010	0.02500	0	102	85	115				
Selenium	0.025	0.0010	0.02500	0	99.7	85	115				
Uranium	0.027	0.0010	0.02500	0	109	85	115				

Sample ID	MB-9408	SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total						
Client ID:	PBW	Batch ID: 9408		RunNo: 13688						
Prep Date:	9/20/2013	Analysis Date: 9/27/2013		SeqNo: 390006			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309651

10-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB-9524	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	9524	RunNo:	13675					
Prep Date:	9/26/2013	Analysis Date:	9/27/2013	SeqNo:	389516	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-9524	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	9524	RunNo:	13675					
Prep Date:	9/26/2013	Analysis Date:	9/27/2013	SeqNo:	389517	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309651

10-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R13447	RunNo:	13447					
Prep Date:		Analysis Date:	9/17/2013	SeqNo:	382527	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R13447	RunNo:	13447					
Prep Date:		Analysis Date:	9/17/2013	SeqNo:	382528	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.8	90	110			
Chloride	4.6	0.50	5.000	0	92.9	90	110			
Nitrogen, Nitrite (As N)	0.93	0.10	1.000	0	92.7	90	110			
Bromide	2.4	0.10	2.500	0	97.6	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	98.3	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.1	90	110			
Sulfate	9.6	0.50	10.00	0	95.9	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R13447	RunNo:	13447					
Prep Date:		Analysis Date:	9/17/2013	SeqNo:	382579	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R13447	RunNo:	13447					
Prep Date:		Analysis Date:	9/17/2013	SeqNo:	382580	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309651

10-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 300.0: Anions				
Client ID:	LCSW		Batch ID: R13447			RunNo: 13447				
Prep Date:	Analysis Date: 9/17/2013			SeqNo: 382580		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.4	90	110			
Nitrogen, Nitrite (As N)	0.94	0.10	1.000	0	94.2	90	110			
Bromide	2.4	0.10	2.500	0	97.9	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	98.4	90	110			
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	101	90	110			
Sulfate	9.5	0.50	10.00	0	95.2	90	110			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R13485			RunNo: 13485					
Prep Date:		Analysis Date: 9/19/2013			SeqNo: 383624		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R13485		RunNo: 13485					
Prep Date:			Analysis Date: 9/19/2013		SeqNo: 383625		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.5	0.50	10.00	0	95.1	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309651

10-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	5mL rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R13431	RunNo:	13431					
Prep Date:		Analysis Date:	9/17/2013	SeqNo:	382156	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309651

10-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R13431			RunNo: 13431					
Prep Date:		Analysis Date: 9/17/2013			SeqNo: 382156		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.4	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.3	70	130			
Surr: Dibromofluoromethane	9.5		10.00		94.8	70	130			
Surr: Toluene-d8	9.4		10.00		93.6	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R13431			RunNo: 13431					
Prep Date:		Analysis Date: 9/17/2013			SeqNo: 382158		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	111	70	130			
Toluene	21	1.0	20.00	0	105	82.2	124			
Chlorobenzene	20	1.0	20.00	0	100	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309651

10-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID 100ng lcs	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES					
Client ID: LCSW	Batch ID: R13431				RunNo: 13431					
Prep Date:	Analysis Date: 9/17/2013				SeqNo: 382158		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	22	1.0	20.00	0	108	83.5	155			
Trichloroethene (TCE)	20	1.0	20.00	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.6	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		91.3	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.3	70	130			
Surr: Toluene-d8	9.4		10.00		94.3	70	130			

Sample ID 1309651-001ams	SampType: MS				TestCode: EPA Method 8260B: VOLATILES					
Client ID: OW-11	Batch ID: R13431				RunNo: 13431					
Prep Date:	Analysis Date: 9/17/2013				SeqNo: 382166		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	116	67.9	137			
Toluene	21	1.0	20.00	0	105	77	127			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	24	1.0	20.00	0	122	66.5	131			
Trichloroethene (TCE)	20	1.0	20.00	0	99.5	66.3	134			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.8	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.1	70	130			
Surr: Dibromofluoromethane	9.5		10.00		94.9	70	130			
Surr: Toluene-d8	9.6		10.00		96.2	70	130			

Sample ID 1309651-001amsd	SampType: MSD				TestCode: EPA Method 8260B: VOLATILES					
Client ID: OW-11	Batch ID: R13431				RunNo: 13431					
Prep Date:	Analysis Date: 9/17/2013				SeqNo: 382167		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	114	67.9	137	1.49	20	
Toluene	21	1.0	20.00	0	104	77	127	0.842	20	
Chlorobenzene	20	1.0	20.00	0	99.9	70	130	2.34	20	
1,1-Dichloroethene	23	1.0	20.00	0	115	66.5	131	6.30	20	
Trichloroethene (TCE)	19	1.0	20.00	0	97.1	66.3	134	2.45	20	
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.6		10.00		95.7	70	130	0	0	
Surr: Dibromofluoromethane	9.4		10.00		93.7	70	130	0	0	
Surr: Toluene-d8	9.5		10.00		95.1	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309651

10-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	mb-9388		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 9388		RunNo: 13491					
Prep Date:	9/19/2013		Analysis Date: 9/19/2013		SeqNo: 383794		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	40								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309651

10-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	mb-9388	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	9388	RunNo:	13491					
Prep Date:	9/19/2013	Analysis Date:	9/19/2013	SeqNo:	383794	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: 2,4,6-Tribromophenol	130		200.0		63.6	41.5	117			
Surr: 2-Fluorobiphenyl	76		100.0		76.4	29.1	112			
Surr: 2-Fluorophenol	150		200.0		73.4	11.9	98.6			
Surr: 4-Terphenyl-d14	87		100.0		87.1	46	111			
Surr: Nitrobenzene-d5	70		100.0		69.8	34.9	112			
Surr: Phenol-d5	140		200.0		68.0	17.5	88.3			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309651

10-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	Ics-9388		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 9388		RunNo: 13491					
Prep Date:	9/19/2013		Analysis Date: 9/19/2013		SeqNo: 383797		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	73	10	100.0	0	72.8	48	101			
4-Chloro-3-methylphenol	160	10	200.0	0	79.8	47.9	109			
2-Chlorophenol	150	10	200.0	0	74.1	40	105			
1,4-Dichlorobenzene	74	10	100.0	0	73.7	40.8	94.3			
2,4-Dinitrotoluene	63	10	100.0	0	63.2	28.3	131			
N-Nitrosodi-n-propylamine	83	10	100.0	0	82.9	46.2	119			
4-Nitrophenol	44	10	200.0	0	22.2	10.5	67.9			
Pentachlorophenol	81	20	200.0	0	40.7	22.4	81.1			
Phenol	100	10	200.0	0	50.6	21.4	72.9			
Pyrene	81	10	100.0	0	81.2	46.9	109			
1,2,4-Trichlorobenzene	71	10	100.0	0	71.4	43.1	98.4			
Surr: 2,4,6-Tribromophenol	140		200.0		67.9	41.5	117			
Surr: 2-Fluorobiphenyl	77		100.0		77.1	29.1	112			
Surr: 2-Fluorophenol	140		200.0		67.8	11.9	98.6			
Surr: 4-Terphenyl-d14	88		100.0		87.6	46	111			
Surr: Nitrobenzene-d5	79		100.0		79.1	34.9	112			
Surr: Phenol-d5	110		200.0		54.4	17.5	88.3			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1309651

RcptNo: 1

Received by/date: AS 09/17/13

Logged By: **Lindsay Mangin** 9/17/2013 8:30:00 AM *Lindsay Mangin*

Completed By: **Lindsay Mangin** 9/17/2013 9:13:00 AM *Lindsay Mangin*

Reviewed By: *[Signature]* 09/17/13

Chain of Custody

- Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
- Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
- How was the sample delivered? FedEx

Log In

- Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
- Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
- Sample(s) in proper container(s)? Yes ☒ No ☐
- Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
- Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☒
- Was preservative added to bottles? Yes ☒ No ☒ NA ☐
FOR METALS ANALYSIS: Added 1mL HNO₃ TO -001D, -002D, -004D, -005D FOR ACCEPTABLE pH. HELD IN LOG IN
- VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐ *FOR 24 HOURS AFTER PRESERVATION.*
- Were any sample containers received broken? Yes ☐ No ☒
- Does paperwork match bottle labels? Yes ☒ No ☐
(Note discrepancies on chain of custody)
- Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
- Is it clear what analyses were requested? Yes ☒ No ☐
- Were all holding times able to be met? Yes ☒ No ☐
(If no, notify customer for authorization.)

of preserved bottles checked for pH: 15
(2 or >12 unless noted)
Adjusted? YES
Checked by: *[Signature]*

Special Handling (if applicable)

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

Person Notified: _____ 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			

Chain-of-Custody Record						Turn-Around Time:	
Client:		Western Refining Company				X Standard	☐ Rush
GALLUP REFINERY							
Mailing Address:		NOTE NEW ADDRESS					
92 GIANT CROSSING ROAD, GALLUP, NM 87301							
Phone #:		505-722-3833					
email or Fax#:		505-863-0930					
QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation) Accreditation: ☒ NELAP ☐ Other ☐ EDD (Type) _____							
Sampler:		C. JOHNSON (cheryl.johnson@wnr.com)					
On Site:						A Yes	No
Sample Temperature:						O	
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	
9/16/2013	1228	AQUEOUS	OW-11	VARIOUS	VARIABLES	BQ4651	
						-001	
9/16/2013	920	AQUEOUS	RW-2			-002	
9/16/2013	1000	AQUEOUS	RW-5			-003	
9/16/2013	1050	AQUEOUS	RW-6			-004	
9/16/2013	1445	AQUEOUS	RW-1			-005	
9/16/2013	730	AQUEOUS	FIELD BLANK	NDA X3	HCL	-006	
			TRIP BLANK	VORAB	HCL	-007	
Date:	Time:	Relinquished by:	Received by:	Date	Time		
9/16/13	1335	[Signature]	[Signature]	09/17/13	0930		
Date:	Time:	Relinquished by:	Rescued by:	Date	Time		
		[Signature]	[Signature]				

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



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

October 02, 2013

Cheryl Johnson

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

RE: 2013 Annual

OrderNo.: 1309442

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 9/11/2013 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 1309442

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-2

Project: 2013 Annual

Collection Date: 9/10/2013 9:15:00 AM

Lab ID: 1309442-001

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/13/2013 11:53:01 PM	9281
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/13/2013 11:53:01 PM	9281
Surr: DNOP	94.8	70.1-140		%REC	1	9/13/2013 11:53:01 PM	9281
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/12/2013 2:13:10 PM	R13339
Surr: BFB	95.4	51.5-151		%REC	1	9/12/2013 2:13:10 PM	R13339
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.77	0.10		mg/L	1	9/11/2013 7:29:58 PM	R13315
Chloride	50	10		mg/L	20	9/11/2013 7:42:23 PM	R13315
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	9/11/2013 7:29:58 PM	R13315
Bromide	0.10	0.10		mg/L	1	9/11/2013 7:29:58 PM	R13315
Nitrogen, Nitrate (As N)	0.11	0.10		mg/L	1	9/11/2013 7:29:58 PM	R13315
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	9/11/2013 7:29:58 PM	R13315
Sulfate	150	10		mg/L	20	9/11/2013 7:42:23 PM	R13315
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.020	0.0020		mg/L	1	9/16/2013 5:32:08 PM	R13406
Cadmium	ND	0.0020		mg/L	1	9/16/2013 5:32:08 PM	R13406
Calcium	1.8	1.0		mg/L	1	9/16/2013 5:32:08 PM	R13406
Chromium	ND	0.0060		mg/L	1	9/16/2013 5:32:08 PM	R13406
Copper	ND	0.0060		mg/L	1	9/16/2013 5:32:08 PM	R13406
Iron	ND	0.020		mg/L	1	9/17/2013 1:46:12 PM	R13421
Magnesium	ND	1.0		mg/L	1	9/16/2013 5:32:08 PM	R13406
Manganese	0.0051	0.0020		mg/L	1	9/16/2013 5:32:08 PM	R13406
Potassium	1.0	1.0		mg/L	1	9/16/2013 5:32:08 PM	R13406
Silver	ND	0.0050		mg/L	1	9/16/2013 5:32:08 PM	R13406
Sodium	250	5.0		mg/L	5	9/16/2013 5:34:23 PM	R13406
Zinc	ND	0.010		mg/L	1	9/17/2013 1:46:12 PM	R13421
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.020	0.0020		mg/L	1	9/17/2013 4:05:27 PM	9322
Cadmium	ND	0.0020		mg/L	1	9/17/2013 4:05:27 PM	9322
Chromium	ND	0.0060		mg/L	1	9/17/2013 4:05:27 PM	9322
Copper	ND	0.0060		mg/L	1	9/17/2013 4:05:27 PM	9322
Iron	ND	0.020		mg/L	1	9/17/2013 4:05:27 PM	9322
Manganese	0.0060	0.0020		mg/L	1	9/17/2013 4:05:27 PM	9322
Silver	ND	0.0050		mg/L	1	9/17/2013 4:05:27 PM	9322
Zinc	ND	0.010		mg/L	1	9/17/2013 4:05:27 PM	9322

EPA 200.8: DISSOLVED METALS

Analyst: DBD

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309442

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-2

Project: 2013 Annual

Collection Date: 9/10/2013 9:15:00 AM

Lab ID: 1309442-001

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	9/24/2013 3:04:49 PM	R13604
Lead	ND	0.0010		mg/L	1	9/24/2013 3:04:49 PM	R13604
Selenium	ND	0.0010		mg/L	1	9/26/2013 2:31:42 PM	R13639
Uranium	0.0095	0.0010		mg/L	1	9/24/2013 3:04:49 PM	R13604
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0010	0.0010		mg/L	1	9/25/2013 3:12:23 PM	9322
Lead	ND	0.0010		mg/L	1	9/25/2013 3:12:23 PM	9322
Selenium	ND	0.0010		mg/L	1	9/25/2013 3:12:23 PM	9322
Uranium	0.0097	0.0010		mg/L	1	9/27/2013 1:11:06 PM	9322
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/24/2013 5:50:21 PM	9453
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Acenaphthylene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Aniline	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Anthracene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Azobenzene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Benz(a)anthracene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Benzo(a)pyrene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Benzo(b)fluoranthene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Benzo(k)fluoranthene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Benzoic acid	ND	40		µg/L	1	9/17/2013 3:36:30 PM	9302
Benzyl alcohol	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Butyl benzyl phthalate	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Carbazole	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
4-Chloroaniline	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
2-Chloronaphthalene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
2-Chlorophenol	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Chrysene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Di-n-butyl phthalate	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

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Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-2

Project: 2013 Annual

Collection Date: 9/10/2013 9:15:00 AM

Lab ID: 1309442-001

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Dibenzofuran	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
1,2-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
1,3-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
1,4-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Diethyl phthalate	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Dimethyl phthalate	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
2,4-Dichlorophenol	ND	20		µg/L	1	9/17/2013 3:36:30 PM	9302
2,4-Dimethylphenol	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/17/2013 3:36:30 PM	9302
2,4-Dinitrophenol	ND	20		µg/L	1	9/17/2013 3:36:30 PM	9302
2,4-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
2,6-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Fluoranthene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Fluorene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Hexachlorobenzene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Hexachlorobutadiene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Hexachloroethane	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Isophorone	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
1-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
2-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
2-Methylphenol	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
3+4-Methylphenol	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
N-Nitrosodimethylamine	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Naphthalene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
2-Nitroaniline	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
3-Nitroaniline	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
4-Nitroaniline	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Nitrobenzene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
2-Nitrophenol	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
4-Nitrophenol	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Pentachlorophenol	ND	20		µg/L	1	9/17/2013 3:36:30 PM	9302
Phenanthrene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302

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

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Lab Order 1309442

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-2

Project: 2013 Annual

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Lab ID: 1309442-001

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Pyrene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Pyridine	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/17/2013 3:36:30 PM	9302
Surr: 2,4,6-Tribromophenol	77.6	41.5-117		%REC	1	9/17/2013 3:36:30 PM	9302
Surr: 2-Fluorobiphenyl	92.2	29.1-112		%REC	1	9/17/2013 3:36:30 PM	9302
Surr: 2-Fluorophenol	76.6	11.9-98.6		%REC	1	9/17/2013 3:36:30 PM	9302
Surr: 4-Terphenyl-d14	102	46-111		%REC	1	9/17/2013 3:36:30 PM	9302
Surr: Nitrobenzene-d5	93.1	34.9-112		%REC	1	9/17/2013 3:36:30 PM	9302
Surr: Phenol-d5	54.4	17.5-88.3		%REC	1	9/17/2013 3:36:30 PM	9302
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Toluene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Ethylbenzene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Naphthalene	ND	2.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
2-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Acetone	ND	10		µg/L	1	9/12/2013 4:03:20 PM	R13338
Bromobenzene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Bromodichloromethane	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Bromoform	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Bromomethane	ND	3.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
2-Butanone	ND	10		µg/L	1	9/12/2013 4:03:20 PM	R13338
Carbon disulfide	ND	10		µg/L	1	9/12/2013 4:03:20 PM	R13338
Carbon Tetrachloride	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Chlorobenzene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Chloroethane	ND	2.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Chloroform	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Chloromethane	ND	3.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
2-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
4-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
cis-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309442

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-2

Project: 2013 Annual

Collection Date: 9/10/2013 9:15:00 AM

Lab ID: 1309442-001

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Dibromochloromethane	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Dibromomethane	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,1-Dichloroethane	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,1-Dichloroethene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,2-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,3-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
2,2-Dichloropropane	ND	2.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,1-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Hexachlorobutadiene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
2-Hexanone	ND	10		µg/L	1	9/12/2013 4:03:20 PM	R13338
Isopropylbenzene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
4-Isopropyltoluene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
4-Methyl-2-pentanone	ND	10		µg/L	1	9/12/2013 4:03:20 PM	R13338
Methylene Chloride	ND	3.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
n-Butylbenzene	ND	3.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
n-Propylbenzene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
sec-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Styrene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
tert-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
trans-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Trichlorofluoromethane	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Vinyl chloride	ND	1.0		µg/L	1	9/12/2013 4:03:20 PM	R13338
Xylenes, Total	ND	1.5		µg/L	1	9/12/2013 4:03:20 PM	R13338

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1309442**

Date Reported: **10/2/2013**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-2

Project: 2013 Annual

Collection Date: 9/10/2013 9:15:00 AM

Lab ID: 1309442-001

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	91.4	70-130		%REC	1	9/12/2013 4:03:20 PM	R13338
Surr: 4-Bromofluorobenzene	87.7	70-130		%REC	1	9/12/2013 4:03:20 PM	R13338
Surr: Dibromofluoromethane	84.9	70-130		%REC	1	9/12/2013 4:03:20 PM	R13338
Surr: Toluene-d8	93.4	70-130		%REC	1	9/12/2013 4:03:20 PM	R13338

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309442

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-4

Project: 2013 Annual

Collection Date: 9/10/2013 10:22:00 AM

Lab ID: 1309442-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/14/2013 12:15:19 AM	9281
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/14/2013 12:15:19 AM	9281
Surr: DNOP	106	70.1-140		%REC	1	9/14/2013 12:15:19 AM	9281
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/12/2013 2:41:55 PM	R13339
Surr: BFB	97.3	51.5-151		%REC	1	9/12/2013 2:41:55 PM	R13339
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.32	0.10		mg/L	1	9/11/2013 7:54:48 PM	R13315
Chloride	18	0.50		mg/L	1	9/11/2013 7:54:48 PM	R13315
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	9/11/2013 7:54:48 PM	R13315
Bromide	0.13	0.10		mg/L	1	9/11/2013 7:54:48 PM	R13315
Nitrogen, Nitrate (As N)	0.14	0.10		mg/L	1	9/11/2013 7:54:48 PM	R13315
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	9/11/2013 7:54:48 PM	R13315
Sulfate	150	10		mg/L	20	9/11/2013 8:07:13 PM	R13315
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.022	0.0020		mg/L	1	9/16/2013 5:36:24 PM	R13406
Cadmium	ND	0.0020		mg/L	1	9/16/2013 5:36:24 PM	R13406
Calcium	6.3	1.0		mg/L	1	9/16/2013 5:36:24 PM	R13406
Chromium	ND	0.0060		mg/L	1	9/16/2013 5:36:24 PM	R13406
Copper	ND	0.0060		mg/L	1	9/16/2013 5:36:24 PM	R13406
Iron	ND	0.020		mg/L	1	9/17/2013 1:48:27 PM	R13421
Magnesium	ND	1.0		mg/L	1	9/16/2013 5:36:24 PM	R13406
Manganese	0.0057	0.0020		mg/L	1	9/16/2013 5:36:24 PM	R13406
Potassium	1.1	1.0		mg/L	1	9/16/2013 5:36:24 PM	R13406
Silver	ND	0.0050		mg/L	1	9/16/2013 5:36:24 PM	R13406
Sodium	280	5.0		mg/L	5	9/16/2013 5:38:37 PM	R13406
Zinc	0.017	0.010		mg/L	1	9/17/2013 1:48:27 PM	R13421
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.021	0.0020		mg/L	1	9/17/2013 4:16:18 PM	9322
Cadmium	ND	0.0020		mg/L	1	9/17/2013 4:16:18 PM	9322
Chromium	ND	0.0060		mg/L	1	9/17/2013 4:16:18 PM	9322
Copper	ND	0.0060		mg/L	1	9/17/2013 4:16:18 PM	9322
Iron	ND	0.020		mg/L	1	9/17/2013 4:16:18 PM	9322
Manganese	0.0058	0.0020		mg/L	1	9/17/2013 4:16:18 PM	9322
Silver	ND	0.0050		mg/L	1	9/17/2013 4:16:18 PM	9322
Zinc	ND	0.010		mg/L	1	9/17/2013 4:16:18 PM	9322

EPA 200.8: DISSOLVED METALS

Analyst: DBD

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309442

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-4

Project: 2013 Annual

Collection Date: 9/10/2013 10:22:00 AM

Lab ID: 1309442-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	9/23/2013 2:16:57 PM	R13540
Lead	ND	0.0010		mg/L	1	9/24/2013 3:12:50 PM	R13604
Selenium	ND	0.0010		mg/L	1	9/26/2013 2:34:22 PM	R13639
Uranium	0.018	0.0010		mg/L	1	9/24/2013 3:12:50 PM	R13604
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	9/25/2013 3:14:46 PM	9322
Lead	ND	0.0010		mg/L	1	9/25/2013 3:14:46 PM	9322
Selenium	ND	0.0010		mg/L	1	9/25/2013 3:14:46 PM	9322
Uranium	0.018	0.0010		mg/L	1	9/27/2013 1:18:19 PM	9322
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/24/2013 5:52:09 PM	9453
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Acenaphthylene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Aniline	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Anthracene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Azobenzene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Benz(a)anthracene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Benzo(a)pyrene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Benzo(b)fluoranthene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Benzo(k)fluoranthene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Benzoic acid	ND	40		µg/L	1	9/17/2013 4:05:32 PM	9302
Benzyl alcohol	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Butyl benzyl phthalate	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Carbazole	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
4-Chloroaniline	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
2-Chloronaphthalene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
2-Chlorophenol	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Chrysene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Di-n-butyl phthalate	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309442

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-4

Project: 2013 Annual

Collection Date: 9/10/2013 10:22:00 AM

Lab ID: 1309442-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Dibenzofuran	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
1,2-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
1,3-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
1,4-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Diethyl phthalate	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Dimethyl phthalate	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
2,4-Dichlorophenol	ND	20		µg/L	1	9/17/2013 4:05:32 PM	9302
2,4-Dimethylphenol	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/17/2013 4:05:32 PM	9302
2,4-Dinitrophenol	ND	20		µg/L	1	9/17/2013 4:05:32 PM	9302
2,4-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
2,6-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Fluoranthene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Fluorene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Hexachlorobenzene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Hexachlorobutadiene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Hexachloroethane	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Isophorone	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
1-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
2-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
2-Methylphenol	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
3+4-Methylphenol	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
N-Nitrosodimethylamine	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Naphthalene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
2-Nitroaniline	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
3-Nitroaniline	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
4-Nitroaniline	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Nitrobenzene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
2-Nitrophenol	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
4-Nitrophenol	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Pentachlorophenol	ND	20		µg/L	1	9/17/2013 4:05:32 PM	9302
Phenanthrene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309442

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-4

Project: 2013 Annual

Collection Date: 9/10/2013 10:22:00 AM

Lab ID: 1309442-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Pyrene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Pyridine	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/17/2013 4:05:32 PM	9302
Surr: 2,4,6-Tribromophenol	69.6	41.5-117		%REC	1	9/17/2013 4:05:32 PM	9302
Surr: 2-Fluorobiphenyl	79.5	29.1-112		%REC	1	9/17/2013 4:05:32 PM	9302
Surr: 2-Fluorophenol	65.5	11.9-98.6		%REC	1	9/17/2013 4:05:32 PM	9302
Surr: 4-Terphenyl-d14	91.7	46-111		%REC	1	9/17/2013 4:05:32 PM	9302
Surr: Nitrobenzene-d5	83.2	34.9-112		%REC	1	9/17/2013 4:05:32 PM	9302
Surr: Phenol-d5	47.7	17.5-88.3		%REC	1	9/17/2013 4:05:32 PM	9302
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Toluene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Ethylbenzene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Naphthalene	ND	2.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
2-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Acetone	ND	10		µg/L	1	9/12/2013 4:35:08 PM	R13338
Bromobenzene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Bromodichloromethane	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Bromoform	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Bromomethane	ND	3.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
2-Butanone	ND	10		µg/L	1	9/12/2013 4:35:08 PM	R13338
Carbon disulfide	ND	10		µg/L	1	9/12/2013 4:35:08 PM	R13338
Carbon Tetrachloride	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Chlorobenzene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Chloroethane	ND	2.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Chloroform	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Chloromethane	ND	3.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
2-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
4-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
cis-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309442

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-4

Project: 2013 Annual

Collection Date: 9/10/2013 10:22:00 AM

Lab ID: 1309442-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Dibromochloromethane	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Dibromomethane	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,1-Dichloroethane	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,1-Dichloroethene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,2-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,3-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
2,2-Dichloropropane	ND	2.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,1-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Hexachlorobutadiene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
2-Hexanone	ND	10		µg/L	1	9/12/2013 4:35:08 PM	R13338
Isopropylbenzene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
4-Isopropyltoluene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
4-Methyl-2-pentanone	ND	10		µg/L	1	9/12/2013 4:35:08 PM	R13338
Methylene Chloride	ND	3.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
n-Butylbenzene	ND	3.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
n-Propylbenzene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
sec-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Styrene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
tert-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
trans-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Trichlorofluoromethane	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Vinyl chloride	ND	1.0		µg/L	1	9/12/2013 4:35:08 PM	R13338
Xylenes, Total	ND	1.5		µg/L	1	9/12/2013 4:35:08 PM	R13338

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1309442**

Date Reported: **10/2/2013**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-4

Project: 2013 Annual

Collection Date: 9/10/2013 10:22:00 AM

Lab ID: 1309442-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	91.2	70-130		%REC	1	9/12/2013 4:35:08 PM	R13338
Surr: 4-Bromofluorobenzene	92.6	70-130		%REC	1	9/12/2013 4:35:08 PM	R13338
Surr: Dibromofluoromethane	89.1	70-130		%REC	1	9/12/2013 4:35:08 PM	R13338
Surr: Toluene-d8	95.5	70-130		%REC	1	9/12/2013 4:35:08 PM	R13338

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309442

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-5

Project: 2013 Annual

Collection Date: 9/10/2013 8:05:00 AM

Lab ID: 1309442-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/14/2013 12:37:17 AM	9281
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/14/2013 12:37:17 AM	9281
Surr: DNOP	109	70.1-140		%REC	1	9/14/2013 12:37:17 AM	9281
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/12/2013 3:12:08 PM	R13339
Surr: BFB	96.2	51.5-151		%REC	1	9/12/2013 3:12:08 PM	R13339
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.76	0.10		mg/L	1	9/11/2013 8:19:38 PM	R13315
Chloride	57	10		mg/L	20	9/11/2013 8:32:03 PM	R13315
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	9/11/2013 8:19:38 PM	R13315
Bromide	0.11	0.10		mg/L	1	9/11/2013 8:19:38 PM	R13315
Nitrogen, Nitrate (As N)	0.80	0.10		mg/L	1	9/11/2013 8:19:38 PM	R13315
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	9/11/2013 8:19:38 PM	R13315
Sulfate	160	10		mg/L	20	9/11/2013 8:32:03 PM	R13315
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.018	0.0020		mg/L	1	9/16/2013 5:40:39 PM	R13406
Cadmium	ND	0.0020		mg/L	1	9/16/2013 5:40:39 PM	R13406
Calcium	1.6	1.0		mg/L	1	9/16/2013 5:40:39 PM	R13406
Chromium	ND	0.0060		mg/L	1	9/16/2013 5:40:39 PM	R13406
Copper	ND	0.0060		mg/L	1	9/16/2013 5:40:39 PM	R13406
Iron	ND	0.020		mg/L	1	9/17/2013 1:50:40 PM	R13421
Magnesium	ND	1.0		mg/L	1	9/16/2013 5:40:39 PM	R13406
Manganese	0.0034	0.0020		mg/L	1	9/16/2013 5:40:39 PM	R13406
Potassium	ND	1.0		mg/L	1	9/16/2013 5:40:39 PM	R13406
Silver	ND	0.0050		mg/L	1	9/16/2013 5:40:39 PM	R13406
Sodium	260	5.0		mg/L	5	9/16/2013 5:42:53 PM	R13406
Zinc	0.012	0.010		mg/L	1	9/17/2013 1:50:40 PM	R13421
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.040	0.0020		mg/L	1	9/17/2013 4:20:34 PM	9322
Cadmium	ND	0.0020		mg/L	1	9/17/2013 4:20:34 PM	9322
Chromium	ND	0.0060		mg/L	1	9/17/2013 4:20:34 PM	9322
Copper	ND	0.0060		mg/L	1	9/17/2013 4:20:34 PM	9322
Iron	ND	0.020		mg/L	1	9/17/2013 4:20:34 PM	9322
Manganese	0.0035	0.0020		mg/L	1	9/17/2013 4:20:34 PM	9322
Silver	ND	0.0050		mg/L	1	9/17/2013 4:20:34 PM	9322
Zinc	ND	0.010		mg/L	1	9/17/2013 4:20:34 PM	9322

EPA 200.8: DISSOLVED METALS

Analyst: DBD

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309442

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-5

Project: 2013 Annual

Collection Date: 9/10/2013 8:05:00 AM

Lab ID: 1309442-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0010	0.0010		mg/L	1	9/23/2013 2:19:36 PM	R13540
Lead	ND	0.0010		mg/L	1	9/24/2013 3:15:30 PM	R13604
Selenium	ND	0.0010		mg/L	1	9/26/2013 2:37:01 PM	R13639
Uranium	0.010	0.0010		mg/L	1	9/24/2013 3:15:30 PM	R13604
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	9/25/2013 3:17:09 PM	9322
Lead	ND	0.0010		mg/L	1	9/25/2013 3:17:09 PM	9322
Selenium	ND	0.0010		mg/L	1	9/25/2013 3:17:09 PM	9322
Uranium	0.0096	0.0010		mg/L	1	9/27/2013 1:20:42 PM	9322
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/24/2013 5:57:44 PM	9453
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Acenaphthylene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Aniline	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Anthracene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Azobenzene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Benz(a)anthracene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Benzo(a)pyrene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Benzo(b)fluoranthene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Benzo(k)fluoranthene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Benzoic acid	ND	40		µg/L	1	9/17/2013 4:34:37 PM	9302
Benzyl alcohol	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Butyl benzyl phthalate	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Carbazole	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
4-Chloroaniline	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
2-Chloronaphthalene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
2-Chlorophenol	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Chrysene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Di-n-butyl phthalate	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309442

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-5

Project: 2013 Annual

Collection Date: 9/10/2013 8:05:00 AM

Lab ID: 1309442-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Di-n-octyl phthalate	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Dibenzofuran	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
1,2-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
1,3-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
1,4-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Diethyl phthalate	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Dimethyl phthalate	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
2,4-Dichlorophenol	ND	20		µg/L	1	9/17/2013 4:34:37 PM	9302
2,4-Dimethylphenol	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/17/2013 4:34:37 PM	9302
2,4-Dinitrophenol	ND	20		µg/L	1	9/17/2013 4:34:37 PM	9302
2,4-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
2,6-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Fluoranthene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Fluorene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Hexachlorobenzene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Hexachlorobutadiene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Hexachloroethane	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Isophorone	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
1-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
2-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
2-Methylphenol	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
3+4-Methylphenol	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
N-Nitrosodimethylamine	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Naphthalene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
2-Nitroaniline	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
3-Nitroaniline	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
4-Nitroaniline	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Nitrobenzene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
2-Nitrophenol	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
4-Nitrophenol	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Pentachlorophenol	ND	20		µg/L	1	9/17/2013 4:34:37 PM	9302
Phenanthrene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309442

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-5

Project: 2013 Annual

Collection Date: 9/10/2013 8:05:00 AM

Lab ID: 1309442-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Phenol	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Pyrene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Pyridine	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/17/2013 4:34:37 PM	9302
Surr: 2,4,6-Tribromophenol	62.7	41.5-117		%REC	1	9/17/2013 4:34:37 PM	9302
Surr: 2-Fluorobiphenyl	86.1	29.1-112		%REC	1	9/17/2013 4:34:37 PM	9302
Surr: 2-Fluorophenol	67.8	11.9-98.6		%REC	1	9/17/2013 4:34:37 PM	9302
Surr: 4-Terphenyl-d14	96.4	46-111		%REC	1	9/17/2013 4:34:37 PM	9302
Surr: Nitrobenzene-d5	88.7	34.9-112		%REC	1	9/17/2013 4:34:37 PM	9302
Surr: Phenol-d5	50.6	17.5-88.3		%REC	1	9/17/2013 4:34:37 PM	9302
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Toluene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Ethylbenzene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Naphthalene	ND	2.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
2-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Acetone	ND	10		µg/L	1	9/12/2013 5:06:59 PM	R13338
Bromobenzene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Bromodichloromethane	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Bromoform	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Bromomethane	ND	3.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
2-Butanone	ND	10		µg/L	1	9/12/2013 5:06:59 PM	R13338
Carbon disulfide	ND	10		µg/L	1	9/12/2013 5:06:59 PM	R13338
Carbon Tetrachloride	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Chlorobenzene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Chloroethane	ND	2.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Chloroform	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Chloromethane	ND	3.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
2-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
4-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
cis-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309442

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-5

Project: 2013 Annual

Collection Date: 9/10/2013 8:05:00 AM

Lab ID: 1309442-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Dibromochloromethane	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Dibromomethane	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,1-Dichloroethane	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,1-Dichloroethene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,2-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,3-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
2,2-Dichloropropane	ND	2.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,1-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Hexachlorobutadiene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
2-Hexanone	ND	10		µg/L	1	9/12/2013 5:06:59 PM	R13338
Isopropylbenzene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
4-Isopropyltoluene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
4-Methyl-2-pentanone	ND	10		µg/L	1	9/12/2013 5:06:59 PM	R13338
Methylene Chloride	ND	3.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
n-Butylbenzene	ND	3.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
n-Propylbenzene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
sec-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Styrene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
tert-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
trans-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Trichlorofluoromethane	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Vinyl chloride	ND	1.0		µg/L	1	9/12/2013 5:06:59 PM	R13338
Xylenes, Total	ND	1.5		µg/L	1	9/12/2013 5:06:59 PM	R13338

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1309442**

Date Reported: **10/2/2013**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-5

Project: 2013 Annual

Collection Date: 9/10/2013 8:05:00 AM

Lab ID: 1309442-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: 1,2-Dichloroethane-d4	89.6	70-130		%REC	1	9/12/2013 5:06:59 PM	R13338
Surr: 4-Bromofluorobenzene	87.2	70-130		%REC	1	9/12/2013 5:06:59 PM	R13338
Surr: Dibromofluoromethane	86.2	70-130		%REC	1	9/12/2013 5:06:59 PM	R13338
Surr: Toluene-d8	100	70-130		%REC	1	9/12/2013 5:06:59 PM	R13338

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309442

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 Annual

Collection Date: 9/10/2013 7:00:00 AM

Lab ID: 1309442-004

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
Benzene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Toluene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Ethylbenzene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Naphthalene	ND	2.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
2-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Acetone	ND	10		µg/L	1	9/12/2013 5:38:46 PM	R13338
Bromobenzene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Bromodichloromethane	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Bromoform	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Bromomethane	ND	3.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
2-Butanone	ND	10		µg/L	1	9/12/2013 5:38:46 PM	R13338
Carbon disulfide	ND	10		µg/L	1	9/12/2013 5:38:46 PM	R13338
Carbon Tetrachloride	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Chlorobenzene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Chloroethane	ND	2.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Chloroform	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Chloromethane	ND	3.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
2-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
4-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
cis-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Dibromochloromethane	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Dibromomethane	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1,1-Dichloroethane	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1,1-Dichloroethene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1,2-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1,3-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
2,2-Dichloropropane	ND	2.0		µg/L	1	9/12/2013 5:38:46 PM	R13338

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309442

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 Annual

Collection Date: 9/10/2013 7:00:00 AM

Lab ID: 1309442-004

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Hexachlorobutadiene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
2-Hexanone	ND	10		µg/L	1	9/12/2013 5:38:46 PM	R13338
Isopropylbenzene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
4-Isopropyltoluene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
4-Methyl-2-pentanone	ND	10		µg/L	1	9/12/2013 5:38:46 PM	R13338
Methylene Chloride	ND	3.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
n-Butylbenzene	ND	3.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
n-Propylbenzene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
sec-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Styrene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
tert-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
trans-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Trichlorofluoromethane	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Vinyl chloride	ND	1.0		µg/L	1	9/12/2013 5:38:46 PM	R13338
Xylenes, Total	ND	1.5		µg/L	1	9/12/2013 5:38:46 PM	R13338
Surr: 1,2-Dichloroethane-d4	96.3	70-130		%REC	1	9/12/2013 5:38:46 PM	R13338
Surr: 4-Bromofluorobenzene	90.7	70-130		%REC	1	9/12/2013 5:38:46 PM	R13338
Surr: Dibromofluoromethane	92.5	70-130		%REC	1	9/12/2013 5:38:46 PM	R13338
Surr: Toluene-d8	89.9	70-130		%REC	1	9/12/2013 5:38:46 PM	R13338

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309442

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 Annual

Collection Date:

Lab ID: 1309442-005

Matrix: TRIP BLANK

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/12/2013 3:42:32 PM	R13339
Surr: BFB	95.7	51.5-151		%REC	1	9/12/2013 3:42:32 PM	R13339
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Toluene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Ethylbenzene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Naphthalene	ND	2.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
2-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Acetone	ND	10		µg/L	1	9/12/2013 6:10:31 PM	R13338
Bromobenzene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Bromodichloromethane	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Bromoform	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Bromomethane	ND	3.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
2-Butanone	ND	10		µg/L	1	9/12/2013 6:10:31 PM	R13338
Carbon disulfide	ND	10		µg/L	1	9/12/2013 6:10:31 PM	R13338
Carbon Tetrachloride	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Chlorobenzene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Chloroethane	ND	2.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Chloroform	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Chloromethane	ND	3.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
2-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
4-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
cis-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Dibromochloromethane	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Dibromomethane	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1,1-Dichloroethane	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1,1-Dichloroethene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309442

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 Annual

Collection Date:

Lab ID: 1309442-005

Matrix: TRIP BLANK

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,2-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1,3-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
2,2-Dichloropropane	ND	2.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1,1-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Hexachlorobutadiene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
2-Hexanone	ND	10		µg/L	1	9/12/2013 6:10:31 PM	R13338
Isopropylbenzene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
4-Isopropyltoluene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
4-Methyl-2-pentanone	ND	10		µg/L	1	9/12/2013 6:10:31 PM	R13338
Methylene Chloride	ND	3.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
n-Butylbenzene	ND	3.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
n-Propylbenzene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
sec-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Styrene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
tert-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
trans-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Trichlorofluoromethane	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Vinyl chloride	ND	1.0		µg/L	1	9/12/2013 6:10:31 PM	R13338
Xylenes, Total	ND	1.5		µg/L	1	9/12/2013 6:10:31 PM	R13338
Surr: 1,2-Dichloroethane-d4	94.4	70-130		%REC	1	9/12/2013 6:10:31 PM	R13338
Surr: 4-Bromofluorobenzene	81.9	70-130		%REC	1	9/12/2013 6:10:31 PM	R13338
Surr: Dibromofluoromethane	89.4	70-130		%REC	1	9/12/2013 6:10:31 PM	R13338
Surr: Toluene-d8	89.9	70-130		%REC	1	9/12/2013 6:10:31 PM	R13338

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Anatek Labs, Inc.

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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 #: 130916010
Project Name: 1309442

Analytical Results Report

Sample Number	130916010-001	Sampling Date	9/10/2013	Date/Time Received	9/13/2013 11:10 AM
Client Sample ID	1309442-001H / MW-2	Sampling Time	9:15 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	9/24/2013	CRW	EPA 335.4	

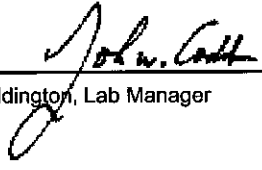
Sample Number	130916010-002	Sampling Date	9/10/2013	Date/Time Received	9/13/2013 11:10 AM
Client Sample ID	1309442-002H / MW-4	Sampling Time	10:22 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	9/24/2013	CRW	EPA 335.4	

Sample Number	130916010-003	Sampling Date	9/10/2013	Date/Time Received	9/13/2013 11:10 AM
Client Sample ID	1309442-003H / MW-5	Sampling Time	8:05 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	9/24/2013	CRW	EPA 335.4	

Authorized Signature


John Coddington, Lab Manager

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

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

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

Tuesday, October 01, 2013

Page 1 of 1

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309442

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R13406	RunNo:	13406					
Prep Date:		Analysis Date:	9/16/2013	SeqNo:	381243	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R13406	RunNo:	13406					
Prep Date:		Analysis Date:	9/16/2013	SeqNo:	381244	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.53	0.0020	0.5000	0	105	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Calcium	53	1.0	50.00	0	107	85	115			
Chromium	0.51	0.0060	0.5000	0	102	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Magnesium	53	1.0	50.00	0	105	85	115			
Manganese	0.51	0.0020	0.5000	0	101	85	115			
Potassium	52	1.0	50.00	0	104	85	115			
Silver	0.089	0.0050	0.1000	0	89.1	85	115			
Sodium	53	1.0	50.00	0	106	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R13421	RunNo:	13421					
Prep Date:		Analysis Date:	9/17/2013	SeqNo:	381764	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Iron	ND	0.020								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R13421	RunNo:	13421					
Prep Date:		Analysis Date:	9/17/2013	SeqNo:	381765	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309442

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R13421	RunNo:	13421					
Prep Date:		Analysis Date:	9/17/2013	SeqNo:	381765	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.51	0.020	0.5000	0	101	85	115			
Zinc	0.52	0.010	0.5000	0	104	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309442

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB-9322		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 9322		RunNo: 13421					
Prep Date:	9/16/2013		Analysis Date: 9/17/2013		SeqNo: 381766		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								
Zinc	ND	0.010								

Sample ID	LCS-9322		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 9322		RunNo: 13421					
Prep Date:	9/16/2013		Analysis Date: 9/17/2013		SeqNo: 381767		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	95.3	85	115			
Zinc	0.50	0.010	0.5000	0	99.5	85	115			

Sample ID	MB-9322		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 9322		RunNo: 13423					
Prep Date:	9/16/2013		Analysis Date: 9/17/2013		SeqNo: 381796		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								

Sample ID	LCS-9322		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 9322		RunNo: 13423					
Prep Date:	9/16/2013		Analysis Date: 9/17/2013		SeqNo: 381797		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Iron	0.50	0.020	0.5000	0	99.9	85	115			
Manganese	0.49	0.0020	0.5000	0	98.3	85	115			
Silver	0.091	0.0050	0.1000	0	90.6	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309442

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385193		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			

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385194		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385195		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	102	85	115			

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385196		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	102	85	115			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385197		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385198		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309442

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R13540		RunNo: 13540							
Prep Date:	Analysis Date: 9/23/2013		SeqNo: 385199		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R13540		RunNo: 13540							
Prep Date:	Analysis Date: 9/23/2013		SeqNo: 385200		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: R13604		RunNo: 13604							
Prep Date:	Analysis Date: 9/24/2013		SeqNo: 387399		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	102	85	115			
Lead	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.027	0.0010	0.02500	0	107	85	115			

Sample ID LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: R13604		RunNo: 13604							
Prep Date:	Analysis Date: 9/24/2013		SeqNo: 387400		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	95.4	85	115			
Lead	0.025	0.0010	0.02500	0	98.2	85	115			
Uranium	0.023	0.0010	0.02500	0	92.4	85	115			

Sample ID LCS-rr	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: R13604		RunNo: 13604							
Prep Date:	Analysis Date: 9/24/2013		SeqNo: 387401		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	102	85	115			
Lead	0.026	0.0010	0.02500	0	104	85	115			
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309442

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID LCS-rr	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R13604			RunNo: 13604						
Prep Date:	Analysis Date: 9/24/2013			SeqNo: 387402		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	91.6	85	115			
Lead	0.025	0.0010	0.02500	0	98.4	85	115			
Uranium	0.027	0.0010	0.02500	0	106	85	115			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13604			RunNo: 13604						
Prep Date:	Analysis Date: 9/24/2013			SeqNo: 387403		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13604			RunNo: 13604						
Prep Date:	Analysis Date: 9/24/2013			SeqNo: 387404		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID MB-rr	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13604			RunNo: 13604						
Prep Date:	Analysis Date: 9/24/2013			SeqNo: 387405		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID MB-rr	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13604			RunNo: 13604						
Prep Date:	Analysis Date: 9/24/2013			SeqNo: 387406		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309442

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R13639		RunNo: 13639					
Prep Date:			Analysis Date: 9/26/2013		SeqNo: 388441		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	98.8	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R13639			RunNo: 13639					
Prep Date:		Analysis Date: 9/26/2013			SeqNo: 388442		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R13639		RunNo: 13639					
Prep Date:			Analysis Date: 9/26/2013		SeqNo: 388822		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R13639			RunNo: 13639					
Prep Date:		Analysis Date: 9/26/2013			SeqNo: 388823		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309442

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	LLLCS-9322		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 9322		RunNo: 13621					
Prep Date:	9/16/2013		Analysis Date: 9/25/2013		SeqNo: 387813		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	0.026	0.0010	0.02500	0	106	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	MB-9322		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 9322		RunNo: 13621					
Prep Date:	9/16/2013		Analysis Date: 9/25/2013		SeqNo: 387814		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	LLLCS-9322		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 9322		RunNo: 13688					
Prep Date:	9/16/2013		Analysis Date: 9/27/2013		SeqNo: 389998		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID	MB-9322		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 9322		RunNo: 13688					
Prep Date:	9/16/2013		Analysis Date: 9/27/2013		SeqNo: 390004		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309442

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB-9453	SampType:	mblk	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	9453	RunNo:	13591					
Prep Date:	9/24/2013	Analysis Date:	9/24/2013	SeqNo:	386838	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-9453	SampType:	lcs	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	9453	RunNo:	13591					
Prep Date:	9/24/2013	Analysis Date:	9/24/2013	SeqNo:	386839	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.7	80	120			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309442

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R13315	RunNo:	13315					
Prep Date:		Analysis Date:	9/11/2013	SeqNo:	378706	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R13315	RunNo:	13315					
Prep Date:		Analysis Date:	9/11/2013	SeqNo:	378707	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	98.4	90	110			
Chloride	4.7	0.50	5.000	0	94.3	90	110			
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	94.9	90	110			
Bromide	2.5	0.10	2.500	0	99.5	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	100	90	110			
Phosphorus, Orthophosphate (As P)	4.8	0.50	5.000	0	96.3	90	110			
Sulfate	10	0.50	10.00	0	101	90	110			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309442

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB-9281		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 9281		RunNo: 13347					
Prep Date:	9/12/2013		Analysis Date: 9/13/2013		SeqNo: 380427		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	70.1	140			

Sample ID	LCSD-9281		SampType: LCSD		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSS02		Batch ID: 9281		RunNo: 13347					
Prep Date:	9/12/2013		Analysis Date: 9/13/2013		SeqNo: 380429		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.8	1.0	5.000	0	96.9	73.3	145	27.8	20	R
Surr: DNOP	0.46		0.5000		92.1	70.1	140	0	0	

Sample ID	LCS-9281		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 9281		RunNo: 13381					
Prep Date:	9/12/2013		Analysis Date: 9/16/2013		SeqNo: 380745		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.4	1.0	5.000	0	128	73.3	145			
Surr: DNOP	0.68		0.5000		135	70.1	140			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309442

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R13339	RunNo:	13339					
Prep Date:		Analysis Date:	9/12/2013	SeqNo:	379510	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		96.8	51.5	151			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R13339	RunNo:	13339					
Prep Date:		Analysis Date:	9/12/2013	SeqNo:	379511	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	92.2	80	120			
Surr: BFB	20		20.00		102	51.5	151			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309442

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R13338			RunNo: 13338					
Prep Date:		Analysis Date: 9/12/2013			SeqNo: 379459		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

P Sample pH greater than 2 for VOA and TOC only.

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309442

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R13338			RunNo: 13338					
Prep Date:		Analysis Date: 9/12/2013			SeqNo: 379459		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	8.8		10.00		88.1	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.8	70	130			
Surr: Toluene-d8	9.8		10.00		98.4	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R13338			RunNo: 13338					
Prep Date:		Analysis Date: 9/12/2013			SeqNo: 379461		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130			
Toluene	19	1.0	20.00	0	94.9	82.2	124			
Chlorobenzene	19	1.0	20.00	0	95.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309442

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R13338			RunNo: 13338					
Prep Date:		Analysis Date: 9/12/2013			SeqNo: 379461		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	104	83.5	155			
Trichloroethene (TCE)	19	1.0	20.00	0	96.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.9	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		87.3	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.4	70	130			
Surr: Toluene-d8	9.1		10.00		91.1	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309442

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	mb-9302	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	9302	RunNo:	13374					
Prep Date:	9/13/2013	Analysis Date:	9/13/2013	SeqNo:	380277	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	40								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309442

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	mb-9302	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	9302	RunNo:	13374					
Prep Date:	9/13/2013	Analysis Date:	9/13/2013	SeqNo:	380277	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: 2,4,6-Tribromophenol	140		200.0		68.8	41.5	117			
Surr: 2-Fluorobiphenyl	72		100.0		71.8	29.1	112			
Surr: 2-Fluorophenol	130		200.0		65.9	11.9	98.6			
Surr: 4-Terphenyl-d14	81		100.0		81.4	46	111			
Surr: Nitrobenzene-d5	77		100.0		77.4	34.9	112			
Surr: Phenol-d5	98		200.0		48.9	17.5	88.3			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309442

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	Ics-9302		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 9302		RunNo: 13374					
Prep Date:	9/13/2013		Analysis Date: 9/13/2013		SeqNo: 380279		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	72.2	53.3	92.5			
4-Chloro-3-methylphenol	170	10	200.0	0	84.1	55.9	93.9			
2-Chlorophenol	170	10	200.0	0	82.7	51.1	85.8			
1,4-Dichlorobenzene	70	10	100.0	0	70.0	41.5	86.7			
2,4-Dinitrotoluene	67	10	100.0	0	67.3	57.5	102			
N-Nitrosodi-n-propylamine	91	10	100.0	0	91.5	52.1	99.7			
4-Nitrophenol	82	10	200.0	0	41.0	27.2	53			
Pentachlorophenol	110	20	200.0	0	53.9	33.7	77.7			
Phenol	110	10	200.0	0	52.7	23.3	66.3			
Pyrene	98	10	100.0	0	98.0	57	88.7			S
1,2,4-Trichlorobenzene	75	10	100.0	0	75.4	46.7	87.8			
Surr: 2,4,6-Tribromophenol	150		200.0		76.8	41.5	117			
Surr: 2-Fluorobiphenyl	68		100.0		68.4	29.1	112			
Surr: 2-Fluorophenol	120		200.0		59.5	11.9	98.6			
Surr: 4-Terphenyl-d14	87		100.0		87.3	46	111			
Surr: Nitrobenzene-d5	80		100.0		79.6	34.9	112			
Surr: Phenol-d5	98		200.0		49.2	17.5	88.3			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit



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

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1309442

RcptNo: 1

Received by/date:

img

09/11/13

Logged By: Ashley Gallegos

9/11/2013 11:10:00 AM

Ag

Completed By: Ashley Gallegos

9/11/2013 4:16:20 PM

Ag

Reviewed By:

img

09/12/13

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present
3. How was the sample delivered? Client

Log In

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

of preserved bottles checked for pH: 9
(2 or >12 unless noted)
Adjusted? YES
Checked by: img

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

eMail

Phone

Fax

In Person

Regarding:

Client Instructions:

17. Additional remarks:

FOR METALS ANALYSIS: Added 1mL HNO₃ to -02LF, -003F AND 0.4 mL HNO₃ to -002G FOR ACCEPTABLE pH. Held in COW

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good	Yes			

FOR 24 HOURS
AFTER PRESERVATION

img 09/12/13
COW 30



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

October 08, 2013

Cheryl Johnson

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

RE: 2013 Annual

OrderNo.: 1309447

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 9/11/2013 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 1309447

Date Reported: 10/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-1

Project: 2013 Annual

Collection Date: 9/9/2013 4:30:00 PM

Lab ID: 1309447-001

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/14/2013 12:59:22 AM	9281
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/14/2013 12:59:22 AM	9281
Surr: DNOP	99.4	70.1-140		%REC	1	9/14/2013 12:59:22 AM	9281
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/12/2013 4:11:06 PM	R13339
Surr: BFB	97.5	51.5-151		%REC	1	9/12/2013 4:11:06 PM	R13339
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.61	0.10		mg/L	1	9/12/2013 9:58:57 PM	R13346
Chloride	44	10		mg/L	20	9/12/2013 10:11:21 PM	R13346
Bromide	ND	0.10		mg/L	1	9/12/2013 9:58:57 PM	R13346
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/12/2013 9:58:57 PM	R13346
Sulfate	150	10		mg/L	20	9/18/2013 4:44:29 AM	R13447
Nitrate+Nitrite as N	4.1	1.0		mg/L	5	9/12/2013 11:38:11 PM	R13346
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.012	0.0020		mg/L	1	9/16/2013 5:44:55 PM	R13406
Cadmium	ND	0.0020		mg/L	1	9/16/2013 5:44:55 PM	R13406
Calcium	1.9	1.0		mg/L	1	9/16/2013 5:44:55 PM	R13406
Chromium	ND	0.0060		mg/L	1	9/16/2013 5:44:55 PM	R13406
Copper	ND	0.0060		mg/L	1	9/16/2013 5:44:55 PM	R13406
Iron	ND	0.020		mg/L	1	9/17/2013 1:52:54 PM	R13421
Magnesium	ND	1.0		mg/L	1	9/16/2013 5:44:55 PM	R13406
Manganese	ND	0.0020		mg/L	1	9/16/2013 5:44:55 PM	R13406
Potassium	ND	1.0		mg/L	1	9/16/2013 5:44:55 PM	R13406
Silver	ND	0.0050		mg/L	1	9/16/2013 5:44:55 PM	R13406
Sodium	260	5.0		mg/L	5	9/16/2013 5:47:01 PM	R13406
Zinc	ND	0.010		mg/L	1	9/17/2013 1:52:54 PM	R13421
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.011	0.0020		mg/L	1	9/19/2013 12:57:34 PM	9304
Cadmium	ND	0.0020		mg/L	1	9/19/2013 12:57:34 PM	9304
Chromium	ND	0.0060		mg/L	1	9/19/2013 12:57:34 PM	9304
Copper	ND	0.0060		mg/L	1	9/19/2013 12:57:34 PM	9304
Iron	ND	0.020		mg/L	1	9/19/2013 12:57:34 PM	9304
Manganese	ND	0.0020		mg/L	1	9/19/2013 12:57:34 PM	9304
Silver	ND	0.0050		mg/L	1	9/19/2013 12:57:34 PM	9304
Zinc	ND	0.010		mg/L	1	9/19/2013 12:57:34 PM	9304
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0016	0.0010		mg/L	1	9/23/2013 2:22:15 PM	R13540

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309447

Date Reported: 10/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-1

Project: 2013 Annual

Collection Date: 9/9/2013 4:30:00 PM

Lab ID: 1309447-001

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0010		mg/L	1	9/24/2013 3:23:31 PM	R13604
Selenium	ND	0.0010		mg/L	1	9/26/2013 2:45:03 PM	R13639
Uranium	0.012	0.0010		mg/L	1	9/24/2013 3:23:31 PM	R13604
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0014	0.0010		mg/L	1	9/25/2013 2:19:20 PM	9304
Lead	ND	0.0010		mg/L	1	9/25/2013 2:19:20 PM	9304
Selenium	ND	0.0010		mg/L	1	9/25/2013 2:19:20 PM	9304
Uranium	0.011	0.0010		mg/L	1	9/27/2013 12:42:23 PM	9304
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/24/2013 5:59:33 PM	9453
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Acenaphthylene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Aniline	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Anthracene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Azobenzene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Benz(a)anthracene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Benzo(a)pyrene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Benzo(b)fluoranthene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Benzo(k)fluoranthene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Benzoic acid	ND	40		µg/L	1	9/17/2013 5:03:37 PM	9302
Benzyl alcohol	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Butyl benzyl phthalate	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Carbazole	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
4-Chloroaniline	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
2-Chloronaphthalene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
2-Chlorophenol	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Chrysene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Di-n-butyl phthalate	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Di-n-octyl phthalate	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309447

Date Reported: 10/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-1

Project: 2013 Annual

Collection Date: 9/9/2013 4:30:00 PM

Lab ID: 1309447-001

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Dibenzofuran	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
1,2-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
1,3-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
1,4-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Diethyl phthalate	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Dimethyl phthalate	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
2,4-Dichlorophenol	ND	20		µg/L	1	9/17/2013 5:03:37 PM	9302
2,4-Dimethylphenol	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/17/2013 5:03:37 PM	9302
2,4-Dinitrophenol	ND	20		µg/L	1	9/17/2013 5:03:37 PM	9302
2,4-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
2,6-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Fluoranthene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Fluorene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Hexachlorobenzene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Hexachlorobutadiene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Hexachloroethane	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Isophorone	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
1-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
2-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
2-Methylphenol	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
3+4-Methylphenol	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
N-Nitrosodimethylamine	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Naphthalene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
2-Nitroaniline	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
3-Nitroaniline	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
4-Nitroaniline	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Nitrobenzene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
2-Nitrophenol	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
4-Nitrophenol	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Pentachlorophenol	ND	20		µg/L	1	9/17/2013 5:03:37 PM	9302
Phenanthrene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Phenol	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309447

Date Reported: 10/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-1

Project: 2013 Annual

Collection Date: 9/9/2013 4:30:00 PM

Lab ID: 1309447-001

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Pyridine	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/17/2013 5:03:37 PM	9302
Surr: 2,4,6-Tribromophenol	59.0	41.5-117		%REC	1	9/17/2013 5:03:37 PM	9302
Surr: 2-Fluorobiphenyl	84.5	29.1-112		%REC	1	9/17/2013 5:03:37 PM	9302
Surr: 2-Fluorophenol	67.9	11.9-98.6		%REC	1	9/17/2013 5:03:37 PM	9302
Surr: 4-Terphenyl-d14	93.9	46-111		%REC	1	9/17/2013 5:03:37 PM	9302
Surr: Nitrobenzene-d5	90.1	34.9-112		%REC	1	9/17/2013 5:03:37 PM	9302
Surr: Phenol-d5	48.8	17.5-88.3		%REC	1	9/17/2013 5:03:37 PM	9302
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Toluene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Ethylbenzene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Naphthalene	ND	2.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1-Methylnaphthalene	ND	4.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
2-Methylnaphthalene	ND	4.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Acetone	ND	10		µg/L	1	9/13/2013 1:40:45 AM	R13331
Bromobenzene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Bromodichloromethane	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Bromoform	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Bromomethane	ND	3.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
2-Butanone	ND	10		µg/L	1	9/13/2013 1:40:45 AM	R13331
Carbon disulfide	ND	10		µg/L	1	9/13/2013 1:40:45 AM	R13331
Carbon Tetrachloride	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Chlorobenzene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Chloroethane	ND	2.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Chloroform	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Chloromethane	ND	3.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
2-Chlorotoluene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
4-Chlorotoluene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
cis-1,2-DCE	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309447

Date Reported: 10/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-1

Project: 2013 Annual

Collection Date: 9/9/2013 4:30:00 PM

Lab ID: 1309447-001

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: JMP
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Dibromochloromethane	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Dibromomethane	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1,1-Dichloroethane	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1,1-Dichloroethene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1,2-Dichloropropane	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1,3-Dichloropropane	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
2,2-Dichloropropane	ND	2.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1,1-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Hexachlorobutadiene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
2-Hexanone	ND	10		µg/L	1	9/13/2013 1:40:45 AM	R13331
Isopropylbenzene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
4-Isopropyltoluene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
4-Methyl-2-pentanone	ND	10		µg/L	1	9/13/2013 1:40:45 AM	R13331
Methylene Chloride	ND	3.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
n-Butylbenzene	ND	3.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
n-Propylbenzene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
sec-Butylbenzene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Styrene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
tert-Butylbenzene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
trans-1,2-DCE	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Trichlorofluoromethane	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Vinyl chloride	ND	1.0		µg/L	1	9/13/2013 1:40:45 AM	R13331
Xylenes, Total	ND	1.5		µg/L	1	9/13/2013 1:40:45 AM	R13331
Surr: 1,2-Dichloroethane-d4	90.5	70-130		%REC	1	9/13/2013 1:40:45 AM	R13331

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1309447**

Date Reported: **10/8/2013**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MW-1

Project: 2013 Annual

Collection Date: 9/9/2013 4:30:00 PM

Lab ID: 1309447-001

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: JMP	
Surr: 4-Bromofluorobenzene	96.9	70-130		%REC	1	9/13/2013 1:40:45 AM	R13331
Surr: Dibromofluoromethane	97.9	70-130		%REC	1	9/13/2013 1:40:45 AM	R13331
Surr: Toluene-d8	98.5	70-130		%REC	1	9/13/2013 1:40:45 AM	R13331

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309447

Date Reported: 10/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-2

Project: 2013 Annual

Collection Date: 9/9/2013 2:37:00 PM

Lab ID: 1309447-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/14/2013 1:21:18 AM	9281
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/14/2013 1:21:18 AM	9281
Surr: DNOP	94.4	70.1-140		%REC	1	9/14/2013 1:21:18 AM	9281
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.15	0.050		mg/L	1	9/12/2013 4:41:22 PM	R13339
Surr: BFB	1100	51.5-151	S	%REC	1	9/12/2013 4:41:22 PM	R13339
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	ND	0.10		mg/L	1	9/12/2013 10:23:45 PM	R13346
Chloride	2500	100		mg/L	200	9/18/2013 4:56:54 AM	R13447
Bromide	2.1	2.0		mg/L	20	9/12/2013 10:36:09 PM	R13346
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	9/12/2013 10:36:09 PM	R13346
Sulfate	1500	100		mg/L	200	9/18/2013 4:56:54 AM	R13447
Nitrate+Nitrite as N	ND	4.0		mg/L	20	10/4/2013 10:59:23 AM	R13865
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.016	0.0020		mg/L	1	9/16/2013 5:49:02 PM	R13406
Cadmium	ND	0.0020		mg/L	1	9/16/2013 5:49:02 PM	R13406
Calcium	270	5.0		mg/L	5	9/16/2013 5:51:19 PM	R13406
Chromium	ND	0.0060		mg/L	1	9/16/2013 5:49:02 PM	R13406
Copper	ND	0.0060		mg/L	1	9/16/2013 5:49:02 PM	R13406
Iron	0.028	0.020		mg/L	1	9/17/2013 1:55:09 PM	R13421
Magnesium	75	1.0		mg/L	1	9/16/2013 5:49:02 PM	R13406
Manganese	0.17	0.0020	*	mg/L	1	9/16/2013 5:49:02 PM	R13406
Potassium	1.7	1.0		mg/L	1	9/16/2013 5:49:02 PM	R13406
Silver	ND	0.025		mg/L	5	9/16/2013 5:51:19 PM	R13406
Sodium	2200	50		mg/L	50	9/17/2013 1:57:26 PM	R13421
Zinc	0.014	0.010		mg/L	1	9/17/2013 1:55:09 PM	R13421
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.028	0.0020		mg/L	1	9/19/2013 1:01:40 PM	9304
Cadmium	ND	0.0020		mg/L	1	9/19/2013 1:01:40 PM	9304
Chromium	0.029	0.0060		mg/L	1	9/19/2013 1:01:40 PM	9304
Copper	ND	0.0060		mg/L	1	9/19/2013 1:01:40 PM	9304
Iron	0.66	0.020	*	mg/L	1	9/19/2013 1:01:40 PM	9304
Manganese	0.27	0.0020	*	mg/L	1	9/19/2013 1:01:40 PM	9304
Silver	ND	0.025		mg/L	5	9/19/2013 1:03:59 PM	9304
Zinc	0.011	0.010		mg/L	1	9/19/2013 1:01:40 PM	9304
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0055	0.0010		mg/L	1	9/23/2013 2:24:55 PM	R13540

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309447

Date Reported: 10/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-2

Project: 2013 Annual

Collection Date: 9/9/2013 2:37:00 PM

Lab ID: 1309447-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.010		mg/L	10	9/26/2013 2:47:42 PM	R13639
Selenium	0.011	0.010		mg/L	10	9/26/2013 2:47:42 PM	R13639
Uranium	0.10	0.010	*	mg/L	10	9/26/2013 2:47:42 PM	R13639
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	9/27/2013 12:44:46 PM	9304
Lead	ND	0.010		mg/L	10	9/27/2013 12:44:46 PM	9304
Selenium	ND	0.010		mg/L	10	9/27/2013 12:44:46 PM	9304
Uranium	0.11	0.010	*	mg/L	10	9/27/2013 12:44:46 PM	9304
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/24/2013 6:01:23 PM	9453
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Acenaphthylene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Aniline	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Anthracene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Azobenzene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Benz(a)anthracene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Benzo(a)pyrene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Benzo(b)fluoranthene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Benzo(k)fluoranthene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Benzoic acid	ND	40		µg/L	1	9/17/2013 5:32:37 PM	9302
Benzyl alcohol	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Butyl benzyl phthalate	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Carbazole	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
4-Chloroaniline	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
2-Chloronaphthalene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
2-Chlorophenol	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Chrysene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Di-n-butyl phthalate	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Di-n-octyl phthalate	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302

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

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	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
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	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309447

Date Reported: 10/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-2

Project: 2013 Annual

Collection Date: 9/9/2013 2:37:00 PM

Lab ID: 1309447-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Dibenzofuran	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
1,2-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
1,3-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
1,4-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Diethyl phthalate	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Dimethyl phthalate	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
2,4-Dichlorophenol	ND	20		µg/L	1	9/17/2013 5:32:37 PM	9302
2,4-Dimethylphenol	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/17/2013 5:32:37 PM	9302
2,4-Dinitrophenol	ND	20		µg/L	1	9/17/2013 5:32:37 PM	9302
2,4-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
2,6-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Fluoranthene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Fluorene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Hexachlorobenzene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Hexachlorobutadiene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Hexachloroethane	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Isophorone	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
1-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
2-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
2-Methylphenol	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
3+4-Methylphenol	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
N-Nitrosodimethylamine	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Naphthalene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
2-Nitroaniline	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
3-Nitroaniline	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
4-Nitroaniline	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Nitrobenzene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
2-Nitrophenol	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
4-Nitrophenol	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Pentachlorophenol	ND	20		µg/L	1	9/17/2013 5:32:37 PM	9302
Phenanthrene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Phenol	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309447

Date Reported: 10/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-2

Project: 2013 Annual

Collection Date: 9/9/2013 2:37:00 PM

Lab ID: 1309447-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Pyridine	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/17/2013 5:32:37 PM	9302
Surr: 2,4,6-Tribromophenol	24.1	41.5-117	S	%REC	1	9/17/2013 5:32:37 PM	9302
Surr: 2-Fluorobiphenyl	85.7	29.1-112		%REC	1	9/17/2013 5:32:37 PM	9302
Surr: 2-Fluorophenol	41.9	11.9-98.6		%REC	1	9/17/2013 5:32:37 PM	9302
Surr: 4-Terphenyl-d14	86.4	46-111		%REC	1	9/17/2013 5:32:37 PM	9302
Surr: Nitrobenzene-d5	79.2	34.9-112		%REC	1	9/17/2013 5:32:37 PM	9302
Surr: Phenol-d5	43.7	17.5-88.3		%REC	1	9/17/2013 5:32:37 PM	9302
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Toluene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Ethylbenzene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Methyl tert-butyl ether (MTBE)	9.7	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Naphthalene	ND	2.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1-Methylnaphthalene	ND	4.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
2-Methylnaphthalene	ND	4.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Acetone	ND	10		µg/L	1	9/13/2013 11:50:45 AM	R13367
Bromobenzene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Bromodichloromethane	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Bromoform	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Bromomethane	ND	3.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
2-Butanone	ND	10		µg/L	1	9/13/2013 11:50:45 AM	R13367
Carbon disulfide	ND	10		µg/L	1	9/13/2013 11:50:45 AM	R13367
Carbon Tetrachloride	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Chlorobenzene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Chloroethane	ND	2.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Chloroform	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Chloromethane	ND	3.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
2-Chlorotoluene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
4-Chlorotoluene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
cis-1,2-DCE	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309447

Date Reported: 10/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-2

Project: 2013 Annual

Collection Date: 9/9/2013 2:37:00 PM

Lab ID: 1309447-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: JMP
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Dibromochloromethane	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Dibromomethane	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1,1-Dichloroethane	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1,1-Dichloroethene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1,2-Dichloropropane	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1,3-Dichloropropane	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
2,2-Dichloropropane	ND	2.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1,1-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Hexachlorobutadiene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
2-Hexanone	ND	10		µg/L	1	9/13/2013 11:50:45 AM	R13367
Isopropylbenzene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
4-Isopropyltoluene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
4-Methyl-2-pentanone	ND	10		µg/L	1	9/13/2013 11:50:45 AM	R13367
Methylene Chloride	ND	3.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
n-Butylbenzene	ND	3.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
n-Propylbenzene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
sec-Butylbenzene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Styrene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
tert-Butylbenzene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
trans-1,2-DCE	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Trichlorofluoromethane	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Vinyl chloride	ND	1.0		µg/L	1	9/13/2013 11:50:45 AM	R13367
Xylenes, Total	ND	1.5		µg/L	1	9/13/2013 11:50:45 AM	R13367
Surr: 1,2-Dichloroethane-d4	90.6	70-130		%REC	1	9/13/2013 11:50:45 AM	R13367

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1309447**

Date Reported: **10/8/2013**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-2

Project: 2013 Annual

Collection Date: 9/9/2013 2:37:00 PM

Lab ID: 1309447-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: JMP	
Surr: 4-Bromofluorobenzene	92.5	70-130		%REC	1	9/13/2013 11:50:45 AM	R13367
Surr: Dibromofluoromethane	96.4	70-130		%REC	1	9/13/2013 11:50:45 AM	R13367
Surr: Toluene-d8	94.8	70-130		%REC	1	9/13/2013 11:50:45 AM	R13367

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309447

Date Reported: 10/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-4

Project: 2013 Annual

Collection Date: 9/9/2013 3:07:00 PM

Lab ID: 1309447-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/16/2013 11:44:07 AM	9281
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/16/2013 11:44:07 AM	9281
Surr: DNOP	132	70.1-140		%REC	1	9/16/2013 11:44:07 AM	9281
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/12/2013 5:11:39 PM	R13339
Surr: BFB	98.2	51.5-151		%REC	1	9/12/2013 5:11:39 PM	R13339
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.93	0.10		mg/L	1	9/12/2013 11:13:22 PM	R13346
Chloride	59	10		mg/L	20	9/12/2013 11:25:47 PM	R13346
Bromide	0.16	0.10		mg/L	1	9/12/2013 11:13:22 PM	R13346
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/12/2013 11:13:22 PM	R13346
Sulfate	170	10		mg/L	20	9/18/2013 5:09:19 AM	R13447
Nitrate+Nitrite as N	ND	1.0		mg/L	5	9/13/2013 12:03:00 AM	R13346
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.021	0.0020		mg/L	1	9/16/2013 6:01:51 PM	R13406
Cadmium	ND	0.0020		mg/L	1	9/16/2013 6:01:51 PM	R13406
Calcium	4.5	1.0		mg/L	1	9/16/2013 6:01:51 PM	R13406
Chromium	0.012	0.0060		mg/L	1	9/16/2013 6:01:51 PM	R13406
Copper	ND	0.0060		mg/L	1	9/16/2013 6:01:51 PM	R13406
Iron	ND	0.020		mg/L	1	9/17/2013 1:59:45 PM	R13421
Magnesium	1.1	1.0		mg/L	1	9/16/2013 6:01:51 PM	R13406
Manganese	ND	0.0020		mg/L	1	9/16/2013 6:01:51 PM	R13406
Potassium	ND	1.0		mg/L	1	9/16/2013 6:01:51 PM	R13406
Silver	ND	0.0050		mg/L	1	9/16/2013 6:01:51 PM	R13406
Sodium	290	5.0		mg/L	5	9/16/2013 6:04:09 PM	R13406
Zinc	ND	0.010		mg/L	1	9/17/2013 1:59:45 PM	R13421
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.021	0.0020		mg/L	1	9/19/2013 1:14:35 PM	9304
Cadmium	ND	0.0020		mg/L	1	9/19/2013 1:14:35 PM	9304
Chromium	0.025	0.0060		mg/L	1	9/19/2013 1:14:35 PM	9304
Copper	ND	0.0060		mg/L	1	9/19/2013 1:14:35 PM	9304
Iron	0.15	0.020		mg/L	1	9/19/2013 1:14:35 PM	9304
Manganese	0.0050	0.0020		mg/L	1	9/19/2013 1:14:35 PM	9304
Silver	ND	0.0050		mg/L	1	9/19/2013 1:14:35 PM	9304
Zinc	0.012	0.010		mg/L	1	9/19/2013 1:14:35 PM	9304
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0026	0.0010		mg/L	1	9/23/2013 2:27:34 PM	R13540

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309447

Date Reported: 10/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-4

Project: 2013 Annual

Collection Date: 9/9/2013 3:07:00 PM

Lab ID: 1309447-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0010		mg/L	1	9/26/2013 2:50:22 PM	R13639
Selenium	ND	0.0010		mg/L	1	9/26/2013 2:50:22 PM	R13639
Uranium	0.031	0.0050	*	mg/L	5	9/25/2013 8:18:07 PM	R13622
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0025	0.0010		mg/L	1	9/25/2013 2:26:45 PM	9304
Lead	ND	0.0010		mg/L	1	9/25/2013 2:26:45 PM	9304
Selenium	ND	0.0010		mg/L	1	9/25/2013 2:26:45 PM	9304
Uranium	0.031	0.0010	*	mg/L	1	9/27/2013 12:51:59 PM	9304
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/24/2013 6:03:13 PM	9453
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Acenaphthylene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Aniline	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Anthracene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Azobenzene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Benz(a)anthracene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Benzo(a)pyrene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Benzo(b)fluoranthene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Benzo(k)fluoranthene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Benzoic acid	ND	40		µg/L	1	9/17/2013 6:01:32 PM	9302
Benzyl alcohol	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Butyl benzyl phthalate	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Carbazole	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
4-Chloroaniline	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
2-Chloronaphthalene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
2-Chlorophenol	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Chrysene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Di-n-butyl phthalate	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Di-n-octyl phthalate	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309447

Date Reported: 10/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-4

Project: 2013 Annual

Collection Date: 9/9/2013 3:07:00 PM

Lab ID: 1309447-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Dibenzofuran	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
1,2-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
1,3-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
1,4-Dichlorobenzene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Diethyl phthalate	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Dimethyl phthalate	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
2,4-Dichlorophenol	ND	20		µg/L	1	9/17/2013 6:01:32 PM	9302
2,4-Dimethylphenol	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/17/2013 6:01:32 PM	9302
2,4-Dinitrophenol	ND	20		µg/L	1	9/17/2013 6:01:32 PM	9302
2,4-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
2,6-Dinitrotoluene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Fluoranthene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Fluorene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Hexachlorobenzene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Hexachlorobutadiene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Hexachloroethane	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Isophorone	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
1-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
2-Methylnaphthalene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
2-Methylphenol	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
3+4-Methylphenol	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
N-Nitrosodimethylamine	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Naphthalene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
2-Nitroaniline	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
3-Nitroaniline	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
4-Nitroaniline	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Nitrobenzene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
2-Nitrophenol	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
4-Nitrophenol	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Pentachlorophenol	ND	20		µg/L	1	9/17/2013 6:01:32 PM	9302
Phenanthrene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Phenol	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309447

Date Reported: 10/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-4

Project: 2013 Annual

Collection Date: 9/9/2013 3:07:00 PM

Lab ID: 1309447-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Pyridine	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/17/2013 6:01:32 PM	9302
Surr: 2,4,6-Tribromophenol	51.9	41.5-117		%REC	1	9/17/2013 6:01:32 PM	9302
Surr: 2-Fluorobiphenyl	75.2	29.1-112		%REC	1	9/17/2013 6:01:32 PM	9302
Surr: 2-Fluorophenol	54.0	11.9-98.6		%REC	1	9/17/2013 6:01:32 PM	9302
Surr: 4-Terphenyl-d14	80.3	46-111		%REC	1	9/17/2013 6:01:32 PM	9302
Surr: Nitrobenzene-d5	76.4	34.9-112		%REC	1	9/17/2013 6:01:32 PM	9302
Surr: Phenol-d5	40.0	17.5-88.3		%REC	1	9/17/2013 6:01:32 PM	9302
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Toluene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Ethylbenzene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Naphthalene	ND	2.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1-Methylnaphthalene	ND	4.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
2-Methylnaphthalene	ND	4.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Acetone	ND	10		µg/L	1	9/13/2013 2:08:50 AM	R13331
Bromobenzene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Bromodichloromethane	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Bromoform	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Bromomethane	ND	3.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
2-Butanone	ND	10		µg/L	1	9/13/2013 2:08:50 AM	R13331
Carbon disulfide	ND	10		µg/L	1	9/13/2013 2:08:50 AM	R13331
Carbon Tetrachloride	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Chlorobenzene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Chloroethane	ND	2.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Chloroform	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Chloromethane	ND	3.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
2-Chlorotoluene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
4-Chlorotoluene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
cis-1,2-DCE	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309447

Date Reported: 10/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-4

Project: 2013 Annual

Collection Date: 9/9/2013 3:07:00 PM

Lab ID: 1309447-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Dibromochloromethane	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Dibromomethane	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1,1-Dichloroethane	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1,1-Dichloroethene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1,2-Dichloropropane	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1,3-Dichloropropane	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
2,2-Dichloropropane	ND	2.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1,1-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Hexachlorobutadiene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
2-Hexanone	ND	10		µg/L	1	9/13/2013 2:08:50 AM	R13331
Isopropylbenzene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
4-Isopropyltoluene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
4-Methyl-2-pentanone	ND	10		µg/L	1	9/13/2013 2:08:50 AM	R13331
Methylene Chloride	ND	3.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
n-Butylbenzene	ND	3.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
n-Propylbenzene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
sec-Butylbenzene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Styrene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
tert-Butylbenzene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
trans-1,2-DCE	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Trichlorofluoromethane	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Vinyl chloride	ND	1.0		µg/L	1	9/13/2013 2:08:50 AM	R13331
Xylenes, Total	ND	1.5		µg/L	1	9/13/2013 2:08:50 AM	R13331
Surr: 1,2-Dichloroethane-d4	90.4	70-130		%REC	1	9/13/2013 2:08:50 AM	R13331

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1309447**

Date Reported: **10/8/2013**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: SMW-4

Project: 2013 Annual

Collection Date: 9/9/2013 3:07:00 PM

Lab ID: 1309447-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: JMP	
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	1	9/13/2013 2:08:50 AM	R13331
Surr: Dibromofluoromethane	98.4	70-130		%REC	1	9/13/2013 2:08:50 AM	R13331
Surr: Toluene-d8	99.1	70-130		%REC	1	9/13/2013 2:08:50 AM	R13331

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309447

Date Reported: 10/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 Annual

Collection Date: 9/9/2013 1:00:00 PM

Lab ID: 1309447-004

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Toluene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Ethylbenzene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Naphthalene	ND	2.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1-Methylnaphthalene	ND	4.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
2-Methylnaphthalene	ND	4.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Acetone	ND	10		µg/L	1	9/13/2013 2:37:04 AM	R13331
Bromobenzene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Bromodichloromethane	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Bromoform	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Bromomethane	ND	3.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
2-Butanone	ND	10		µg/L	1	9/13/2013 2:37:04 AM	R13331
Carbon disulfide	ND	10		µg/L	1	9/13/2013 2:37:04 AM	R13331
Carbon Tetrachloride	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Chlorobenzene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Chloroethane	ND	2.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Chloroform	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Chloromethane	ND	3.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
2-Chlorotoluene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
4-Chlorotoluene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
cis-1,2-DCE	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Dibromochloromethane	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Dibromomethane	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1,1-Dichloroethane	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1,1-Dichloroethene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1,2-Dichloropropane	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1,3-Dichloropropane	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
2,2-Dichloropropane	ND	2.0		µg/L	1	9/13/2013 2:37:04 AM	R13331

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309447

Date Reported: 10/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 Annual

Collection Date: 9/9/2013 1:00:00 PM

Lab ID: 1309447-004

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
1,1-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Hexachlorobutadiene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
2-Hexanone	ND	10		µg/L	1	9/13/2013 2:37:04 AM	R13331
Isopropylbenzene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
4-Isopropyltoluene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
4-Methyl-2-pentanone	ND	10		µg/L	1	9/13/2013 2:37:04 AM	R13331
Methylene Chloride	ND	3.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
n-Butylbenzene	ND	3.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
n-Propylbenzene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
sec-Butylbenzene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Styrene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
tert-Butylbenzene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
trans-1,2-DCE	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Trichlorofluoromethane	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Vinyl chloride	ND	1.0		µg/L	1	9/13/2013 2:37:04 AM	R13331
Xylenes, Total	ND	1.5		µg/L	1	9/13/2013 2:37:04 AM	R13331
Surr: 1,2-Dichloroethane-d4	90.0	70-130		%REC	1	9/13/2013 2:37:04 AM	R13331
Surr: 4-Bromofluorobenzene	91.7	70-130		%REC	1	9/13/2013 2:37:04 AM	R13331
Surr: Dibromofluoromethane	95.9	70-130		%REC	1	9/13/2013 2:37:04 AM	R13331
Surr: Toluene-d8	96.1	70-130		%REC	1	9/13/2013 2:37:04 AM	R13331

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309447

Date Reported: 10/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 Annual

Collection Date:

Lab ID: 1309447-005

Matrix: TRIP BLANK

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/12/2013 5:41:56 PM	R13339
Surr: BFB	97.2	51.5-151		%REC	1	9/12/2013 5:41:56 PM	R13339
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Toluene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Ethylbenzene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Naphthalene	ND	2.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1-Methylnaphthalene	ND	4.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
2-Methylnaphthalene	ND	4.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Acetone	ND	10		µg/L	1	9/13/2013 3:05:20 AM	R13331
Bromobenzene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Bromodichloromethane	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Bromoform	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Bromomethane	ND	3.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
2-Butanone	ND	10		µg/L	1	9/13/2013 3:05:20 AM	R13331
Carbon disulfide	ND	10		µg/L	1	9/13/2013 3:05:20 AM	R13331
Carbon Tetrachloride	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Chlorobenzene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Chloroethane	ND	2.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Chloroform	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Chloromethane	ND	3.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
2-Chlorotoluene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
4-Chlorotoluene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
cis-1,2-DCE	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Dibromochloromethane	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Dibromomethane	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1,1-Dichloroethane	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1,1-Dichloroethene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309447

Date Reported: 10/8/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 Annual

Collection Date:

Lab ID: 1309447-005

Matrix: TRIP BLANK

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
1,2-Dichloropropane	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1,3-Dichloropropane	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
2,2-Dichloropropane	ND	2.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1,1-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Hexachlorobutadiene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
2-Hexanone	ND	10		µg/L	1	9/13/2013 3:05:20 AM	R13331
Isopropylbenzene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
4-Isopropyltoluene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
4-Methyl-2-pentanone	ND	10		µg/L	1	9/13/2013 3:05:20 AM	R13331
Methylene Chloride	ND	3.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
n-Butylbenzene	ND	3.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
n-Propylbenzene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
sec-Butylbenzene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Styrene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
tert-Butylbenzene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
trans-1,2-DCE	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Trichlorofluoromethane	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Vinyl chloride	ND	1.0		µg/L	1	9/13/2013 3:05:20 AM	R13331
Xylenes, Total	ND	1.5		µg/L	1	9/13/2013 3:05:20 AM	R13331
Surr: 1,2-Dichloroethane-d4	89.8	70-130		%REC	1	9/13/2013 3:05:20 AM	R13331
Surr: 4-Bromofluorobenzene	95.2	70-130		%REC	1	9/13/2013 3:05:20 AM	R13331
Surr: Dibromofluoromethane	97.6	70-130		%REC	1	9/13/2013 3:05:20 AM	R13331
Surr: Toluene-d8	98.9	70-130		%REC	1	9/13/2013 3:05:20 AM	R13331

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Anatek Labs, Inc.

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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 #: 130917017
Project Name: 1309447

Analytical Results Report

Sample Number	130917017-001	Sampling Date	9/9/2013	Date/Time Received	9/17/2013 10:30 AM
Client Sample ID	1309447-001H / MW-1	Sampling Time	4:30 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0407	mg/L	0.01	9/20/2013	CRW	EPA 335.4	

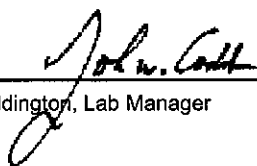
Sample Number	130917017-002	Sampling Date	9/9/2013	Date/Time Received	9/17/2013 10:30 AM
Client Sample ID	1309447-002H / SMW-2	Sampling Time	2:37 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0406	mg/L	0.01	9/20/2013	CRW	EPA 335.4	

Sample Number	130917017-003	Sampling Date	9/9/2013	Date/Time Received	9/17/2013 10:30 AM
Client Sample ID	1309447-003H / SMW-4	Sampling Time	3:07 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	9/20/2013	CRW	EPA 335.4	

Authorized Signature


John Coddington, Lab Manager

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

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

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R13406	RunNo:	13406					
Prep Date:		Analysis Date:	9/16/2013	SeqNo:	381243	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R13406	RunNo:	13406					
Prep Date:		Analysis Date:	9/16/2013	SeqNo:	381244	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0	105	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Calcium	53	1.0	50.00	0	107	85	115			
Chromium	0.51	0.0060	0.5000	0	102	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Magnesium	53	1.0	50.00	0	105	85	115			
Manganese	0.51	0.0020	0.5000	0	101	85	115			
Potassium	52	1.0	50.00	0	104	85	115			
Silver	0.089	0.0050	0.1000	0	89.1	85	115			
Sodium	53	1.0	50.00	0	106	85	115			

Sample ID	1309206-002AMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R13406	RunNo:	13406					
Prep Date:		Analysis Date:	9/16/2013	SeqNo:	381296	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0.003550	95.3	70	130			
Cadmium	0.50	0.0020	0.5000	0.02356	96.1	70	130			
Chromium	0.46	0.0060	0.5000	0	91.2	70	130			
Copper	0.98	0.0060	0.5000	0.5008	95.2	70	130			
Potassium	49	1.0	50.00	2.450	92.8	70	130			
Sodium	66	1.0	50.00	18.98	94.5	70	130			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	1309206-002AMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	R13406		RunNo:	13406			
Prep Date:			Analysis Date:	9/16/2013		SeqNo:	381297		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0.003550	92.6	70	130	2.84	20	
Cadmium	0.49	0.0020	0.5000	0.02356	93.7	70	130	2.39	20	
Chromium	0.45	0.0060	0.5000	0	90.5	70	130	0.748	20	
Copper	0.94	0.0060	0.5000	0.5008	88.7	70	130	3.41	20	
Potassium	49	1.0	50.00	2.450	93.4	70	130	0.572	20	
Sodium	66	1.0	50.00	18.98	94.8	70	130	0.214	20	

Sample ID	1309206-002AMS		SampType:	MS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	R13406		RunNo:	13406			
Prep Date:			Analysis Date:	9/16/2013		SeqNo:	381299		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	440	5.0	250.0	169.2	107	70	130			
Magnesium	340	5.0	250.0	79.00	103	70	130			
Silver	0.44	0.025	0.5000	0	88.2	70	130			

Sample ID	1309206-002AMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	R13406		RunNo:	13406			
Prep Date:			Analysis Date:	9/16/2013		SeqNo:	381300		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	440	5.0	250.0	169.2	108	70	130	0.657	20	
Magnesium	340	5.0	250.0	79.00	104	70	130	0.906	20	
Silver	0.44	0.025	0.5000	0	88.8	70	130	0.633	20	

Sample ID	1309441-001EMS		SampType:	MS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	R13406		RunNo:	13406			
Prep Date:			Analysis Date:	9/16/2013		SeqNo:	381328		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.54	0.0020	0.5000	0.01086	106	70	130			
Cadmium	0.52	0.0020	0.5000	0	105	70	130			
Chromium	0.51	0.0060	0.5000	0	103	70	130			
Copper	0.50	0.0060	0.5000	0	101	70	130			
Manganese	0.51	0.0020	0.5000	0.003600	102	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	1309441-001EMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	R13406		RunNo:	13406			
Prep Date:			Analysis Date:	9/16/2013		SeqNo:	381329		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.55	0.0020	0.5000	0.01086	108	70	130	1.86	20	
Cadmium	0.53	0.0020	0.5000	0	107	70	130	2.04	20	
Chromium	0.51	0.0060	0.5000	0	103	70	130	0.0292	20	
Copper	0.51	0.0060	0.5000	0	102	70	130	1.38	20	
Manganese	0.52	0.0020	0.5000	0.003600	104	70	130	1.87	20	

Sample ID	1309441-001EMS		SampType:	MS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	R13406		RunNo:	13406			
Prep Date:			Analysis Date:	9/16/2013		SeqNo:	381331		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.46	0.025	0.5000	0.02075	86.9	70	130			

Sample ID	1309441-001EMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	R13406		RunNo:	13406			
Prep Date:			Analysis Date:	9/16/2013		SeqNo:	381332		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.47	0.025	0.5000	0.02075	90.5	70	130	3.96	20	

Sample ID	MB		SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	PBW		Batch ID:	R13421		RunNo:	13421			
Prep Date:			Analysis Date:	9/17/2013		SeqNo:	381764		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								
Zinc	ND	0.010								

Sample ID	LCS		SampType:	LCS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	LCSW		Batch ID:	R13421		RunNo:	13421			
Prep Date:			Analysis Date:	9/17/2013		SeqNo:	381765		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.51	0.020	0.5000	0	101	85	115			
Sodium	49	1.0	50.00	0	98.0	85	115			
Zinc	0.52	0.010	0.5000	0	104	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	1309441-001EMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R13421		RunNo: 13421					
Prep Date:			Analysis Date: 9/17/2013		SeqNo: 382040		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.55	0.010	0.5000	0.02891	105	70	130			

Sample ID	1309441-001EMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R13421		RunNo: 13421					
Prep Date:			Analysis Date: 9/17/2013		SeqNo: 382041		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.55	0.010	0.5000	0.02891	105	70	130	0.405	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB-9304		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 9304		RunNo: 13406					
Prep Date:	9/13/2013		Analysis Date: 9/16/2013		SeqNo: 381359		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-9304		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 9304		RunNo: 13406					
Prep Date:	9/13/2013		Analysis Date: 9/16/2013		SeqNo: 381360		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	103	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	98.7	85	115			
Copper	0.49	0.0060	0.5000	0	99.0	85	115			
Iron	0.53	0.020	0.5000	0	107	85	115			
Manganese	0.49	0.0020	0.5000	0	98.5	85	115			
Silver	0.089	0.0050	0.1000	0	88.6	85	115			
Zinc	0.52	0.010	0.5000	0	105	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	1309441-002EMS			SampType:	MS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	R13540			RunNo:	13540		
Prep Date:				Analysis Date:	9/23/2013			SeqNo:	385146		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.030	0.0010	0.02500	0.002959	107	70	130				

Sample ID	1309441-002EMSD			SampType:	MSD			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	R13540			RunNo:	13540		
Prep Date:				Analysis Date:	9/23/2013			SeqNo:	385147		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.030	0.0010	0.02500	0.002959	106	70	130	0.464	20		

Sample ID	1309447-003GMS			SampType:	MS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	SMW-4			Batch ID:	R13540			RunNo:	13540		
Prep Date:				Analysis Date:	9/23/2013			SeqNo:	385154		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.028	0.0010	0.02500	0.002636	99.5	70	130				

Sample ID	LCS			SampType:	LCS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	LCSW			Batch ID:	R13540			RunNo:	13540		
Prep Date:				Analysis Date:	9/23/2013			SeqNo:	385193		
								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				

Sample ID	LCS			SampType:	LCS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	LCSW			Batch ID:	R13540			RunNo:	13540		
Prep Date:				Analysis Date:	9/23/2013			SeqNo:	385194		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.025	0.0010	0.02500	0	100	85	115				

Sample ID	LCS			SampType:	LCS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	LCSW			Batch ID:	R13540			RunNo:	13540		
Prep Date:				Analysis Date:	9/23/2013			SeqNo:	385195		
								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	102	85	115				

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385196		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	102	85	115			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385197		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385198		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385199		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385200		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID 1309441-002EMS	SampType: MS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: R13604			RunNo: 13604						
Prep Date:	Analysis Date: 9/24/2013			SeqNo: 387376		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.026	0.0010	0.02500	.00002626	103	70	130			
Uranium	0.030	0.0010	0.02500	0.001644	115	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R13604			RunNo: 13604						
Prep Date:	Analysis Date: 9/24/2013			SeqNo: 387399			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.027	0.0010	0.02500	0	107	85	115			

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R13604			RunNo: 13604						
Prep Date:	Analysis Date: 9/24/2013			SeqNo: 387400			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	98.2	85	115			
Uranium	0.023	0.0010	0.02500	0	92.4	85	115			

Sample ID LCS-rr	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R13604			RunNo: 13604						
Prep Date:	Analysis Date: 9/24/2013			SeqNo: 387401			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.026	0.0010	0.02500	0	104	85	115			
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID LCS-rr	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R13604			RunNo: 13604						
Prep Date:	Analysis Date: 9/24/2013			SeqNo: 387402			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	98.4	85	115			
Uranium	0.027	0.0010	0.02500	0	106	85	115			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13604			RunNo: 13604						
Prep Date:	Analysis Date: 9/24/2013			SeqNo: 387403			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13604			RunNo: 13604						
Prep Date:	Analysis Date: 9/24/2013			SeqNo: 387404			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R13604			RunNo: 13604					
Prep Date:		Analysis Date: 9/24/2013			SeqNo: 387404		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB-rr	SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	PBW	Batch ID:	R13604		RunNo:	13604				
Prep Date:		Analysis Date:	9/24/2013		SeqNo:	387405		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB-rr	SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	PBW	Batch ID:	R13604		RunNo:	13604				
Prep Date:		Analysis Date:	9/24/2013		SeqNo:	387406		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	1309447-003GMS	SampType: MS			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	SMW-4	Batch ID: R13622			RunNo: 13622					
Prep Date:		Analysis Date: 9/25/2013			SeqNo: 387975		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.16	0.0050	0.1250	0.03056	99.9	70	130			

Sample ID	LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID: R13622			RunNo: 13622					
Prep Date:		Analysis Date: 9/25/2013			SeqNo: 387984		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	105	85	115			

Sample ID	LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID: R13622			RunNo: 13622					
Prep Date:		Analysis Date: 9/25/2013			SeqNo: 387985		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	100	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R13622		RunNo: 13622							
Prep Date:	Analysis Date: 9/25/2013		SeqNo: 387986		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R13622		RunNo: 13622							
Prep Date:	Analysis Date: 9/25/2013		SeqNo: 387987		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: R13639		RunNo: 13639							
Prep Date:	Analysis Date: 9/26/2013		SeqNo: 388441		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	100	85	115			
Selenium	0.025	0.0010	0.02500	0	98.8	85	115			
Uranium	0.025	0.0010	0.02500	0	101	85	115			

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R13639		RunNo: 13639							
Prep Date:	Analysis Date: 9/26/2013		SeqNo: 388442		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID 1309441-002EMS	SampType: MS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: R13639		RunNo: 13639							
Prep Date:	Analysis Date: 9/26/2013		SeqNo: 388782		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0.001212	96.6	70	130			

Sample ID 1309441-002EMSD	SampType: MSD		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: R13639		RunNo: 13639							
Prep Date:	Analysis Date: 9/26/2013		SeqNo: 388783		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.026	0.0010	0.02500	0.001212	98.0	70	130	1.30	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	1309447-003GMS			SampType:	MS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	SMW-4			Batch ID:	R13639			RunNo:	13639		
Prep Date:				Analysis Date:	9/26/2013			SeqNo:	388791		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.025	0.0010	0.02500	0.00009317	102	70	130				
Selenium	0.023	0.0010	0.02500	0.0007799	90.2	70	130				

Sample ID	1309930-003EMS			SampType:	MS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	R13639			RunNo:	13639		
Prep Date:				Analysis Date:	9/26/2013			SeqNo:	388814		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.12	0.0050	0.1250	0.0002282	99.2	70	130				

Sample ID	1309930-003EMSD			SampType:	MSD			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	R13639			RunNo:	13639		
Prep Date:				Analysis Date:	9/26/2013			SeqNo:	388815		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.13	0.0050	0.1250	0.0002282	101	70	130	2.09	20		

Sample ID	LCS			SampType:	LCS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	LCSW			Batch ID:	R13639			RunNo:	13639		
Prep Date:				Analysis Date:	9/26/2013			SeqNo:	388822		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.025	0.0010	0.02500	0	99.9	85	115				
Selenium	0.025	0.0010	0.02500	0	100	85	115				
Uranium	0.025	0.0010	0.02500	0	101	85	115				

Sample ID	MB			SampType:	MBLK			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	PBW			Batch ID:	R13639			RunNo:	13639		
Prep Date:				Analysis Date:	9/26/2013			SeqNo:	388823		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	ND	0.0010									
Selenium	ND	0.0010									
Uranium	ND	0.0010									

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	LLLCS-9304		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 9304		RunNo: 13436					
Prep Date:	9/13/2013		Analysis Date: 9/17/2013		SeqNo: 382323		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.025	0.0010	0.02500	0	100	85	115			
Selenium	0.025	0.0010	0.02500	0	99.1	85	115			
Uranium	0.026	0.0010	0.02500	0	105	85	115			

Sample ID	MB-9304		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 9304		RunNo: 13436					
Prep Date:	9/13/2013		Analysis Date: 9/17/2013		SeqNo: 382324		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	1309473-006ALLMS		SampType: MSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 9304		RunNo: 13621					
Prep Date:	9/13/2013		Analysis Date: 9/25/2013		SeqNo: 387806		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.038	0.0010	0.02500	0.01169	106	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB-9453		SampType: mblk		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 9453		RunNo: 13591					
Prep Date:	9/24/2013		Analysis Date: 9/24/2013		SeqNo: 386838		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-9453		SampType: lcs		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 9453		RunNo: 13591					
Prep Date:	9/24/2013		Analysis Date: 9/24/2013		SeqNo: 386839		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.7	80	120			

Sample ID	1309441-001DMS		SampType: ms		TestCode: EPA Method 245.1: Mercury					
Client ID:	BatchQC		Batch ID: 9453		RunNo: 13591					
Prep Date:	9/24/2013		Analysis Date: 9/24/2013		SeqNo: 386842		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.5	75	125			

Sample ID	1309441-001DMSD			SampType:	msd		TestCode:	EPA Method 245.1: Mercury			
Client ID:	BatchQC			Batch ID:	9453		RunNo:	13591			
Prep Date:	9/24/2013			Analysis Date:	9/24/2013		SeqNo:	386843		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0049	0.00020	0.005000	0	99.0	75	125	0.444	20		

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R13346		RunNo: 13346							
Prep Date:	Analysis Date: 9/12/2013		SeqNo: 379671		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R13346		RunNo: 13346							
Prep Date:	Analysis Date: 9/12/2013		SeqNo: 379672		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	95.1	90	110			
Chloride	4.8	0.50	5.000	0	95.9	90	110			
Bromide	2.5	0.10	2.500	0	100	90	110			
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	103	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.8	90	110			

Sample ID 1309452-001CMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13346		RunNo: 13346							
Prep Date:	Analysis Date: 9/12/2013		SeqNo: 379674		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.5	0.10	0.5000	2.122	70.3	76.9	114			S
Bromide	2.5	0.10	2.500	0.06850	98.5	92	104			

Sample ID 1309452-001CMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R13346		RunNo: 13346							
Prep Date:	Analysis Date: 9/12/2013		SeqNo: 379675		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.3	0.10	0.5000	2.122	45.4	76.9	114	5.16	20	S
Bromide	2.5	0.10	2.500	0.06850	98.4	92	104	0.0988	20	

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R13447		RunNo: 13447							
Prep Date:	Analysis Date: 9/17/2013		SeqNo: 382527		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R13447			RunNo: 13447						
Prep Date:	Analysis Date: 9/17/2013			SeqNo: 382528		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.9	90	110			
Sulfate	9.6	0.50	10.00	0	95.9	90	110			

Sample ID 1309637-001BMS	SampType: MS			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R13447			RunNo: 13447						
Prep Date:	Analysis Date: 9/17/2013			SeqNo: 382530		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.2	89.9	119			
Sulfate	10	0.50	10.00	0.1420	101	90.1	116			

Sample ID 1309637-001BMSD	SampType: MSD			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R13447			RunNo: 13447						
Prep Date:	Analysis Date: 9/17/2013			SeqNo: 382531		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	96.2	89.9	119	0.962	20	
Sulfate	10	0.50	10.00	0.1420	100	90.1	116	0.938	20	

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R13447			RunNo: 13447						
Prep Date:	Analysis Date: 9/17/2013			SeqNo: 382579		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R13447			RunNo: 13447						
Prep Date:	Analysis Date: 9/17/2013			SeqNo: 382580		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.4	90	110			
Sulfate	9.5	0.50	10.00	0	95.2	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R13865			RunNo: 13865						
Prep Date:	Analysis Date: 10/4/2013			SeqNo: 396375		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R13865	RunNo:	13865					
Prep Date:		Analysis Date:	10/4/2013	SeqNo:	396375	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:	R13865	RunNo:	13865					
Prep Date:		Analysis Date:	10/4/2013	SeqNo:	396376	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	101	90	110			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB-9281	SampType: MBLK			TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW	Batch ID: 9281			RunNo: 13347					
Prep Date:	9/12/2013	Analysis Date: 9/13/2013			SeqNo: 380427		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	70.1	140			

Sample ID	LCSD-9281		SampType: LCSD		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSS02		Batch ID: 9281		RunNo: 13347					
Prep Date:	9/12/2013		Analysis Date: 9/13/2013		SeqNo: 380429		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.8	1.0	5.000	0	96.9	73.3	145	27.8	20	R
Surr: DNOP	0.46		0.5000		92.1	70.1	140	0	0	

Sample ID	LCS-9281		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 9281		RunNo: 13381					
Prep Date:	9/12/2013		Analysis Date: 9/16/2013		SeqNo: 380745		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.4	1.0	5.000	0	128	73.3	145			
Surr: DNOP	0.68		0.5000		135	70.1	140			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID: R13339			RunNo: 13339					
Prep Date:		Analysis Date: 9/12/2013			SeqNo: 379510		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		96.8	51.5	151			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: R13339		RunNo: 13339					
Prep Date:			Analysis Date: 9/12/2013		SeqNo: 379511		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	92.2	80	120			
Surr: BFB	20		20.00		102	51.5	151			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	5mL rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R13331	RunNo:	13331					
Prep Date:		Analysis Date:	9/12/2013	SeqNo:	379036	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	5mL rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R13331	RunNo:	13331					
Prep Date:		Analysis Date:	9/12/2013	SeqNo:	379036	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	10		10.00		99.7	70	130			
Surr: Toluene-d8	9.5		10.00		94.9	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R13331	RunNo:	13331					
Prep Date:		Analysis Date:	9/12/2013	SeqNo:	379037	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	112	70	130			
Toluene	21	1.0	20.00	0	106	82.2	124			
Chlorobenzene	21	1.0	20.00	0	104	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID 100ng lcs	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES					
Client ID: LCSW	Batch ID: R13331				RunNo: 13331					
Prep Date:	Analysis Date: 9/12/2013				SeqNo: 379037		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	24	1.0	20.00	0	120	83.5	155			
Trichloroethene (TCE)	20	1.0	20.00	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.0	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.4	70	130			
Surr: Dibromofluoromethane	9.7		10.00		97.1	70	130			
Surr: Toluene-d8	9.9		10.00		98.8	70	130			

Sample ID 1309452-001ams	SampType: MS				TestCode: EPA Method 8260B: VOLATILES					
Client ID: BatchQC	Batch ID: R13331				RunNo: 13331					
Prep Date:	Analysis Date: 9/12/2013				SeqNo: 379039		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	116	67.9	137			
Toluene	20	1.0	20.00	0	102	77	127			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	25	1.0	20.00	0	123	66.5	131			
Trichloroethene (TCE)	21	1.0	20.00	0	103	66.3	134			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.5	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		91.9	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.4	70	130			
Surr: Toluene-d8	9.4		10.00		93.7	70	130			

Sample ID 1309452-001amsd	SampType: MSD				TestCode: EPA Method 8260B: VOLATILES					
Client ID: BatchQC	Batch ID: R13331				RunNo: 13331					
Prep Date:	Analysis Date: 9/12/2013				SeqNo: 379040		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	113	67.9	137	2.74	20	
Toluene	20	1.0	20.00	0	99.7	77	127	2.42	20	
Chlorobenzene	20	1.0	20.00	0	98.5	70	130	3.31	20	
1,1-Dichloroethene	23	1.0	20.00	0	115	66.5	131	6.93	20	
Trichloroethene (TCE)	20	1.0	20.00	0	102	66.3	134	0.538	20	
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.3		10.00		93.1	70	130	0	0	
Surr: Dibromofluoromethane	9.8		10.00		98.4	70	130	0	0	
Surr: Toluene-d8	9.4		10.00		94.3	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	5mL rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R13367	RunNo:	13367					
Prep Date:		Analysis Date:	9/13/2013	SeqNo:	380165	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R13367			RunNo: 13367					
Prep Date:		Analysis Date: 9/13/2013			SeqNo: 380165		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.0	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.5	70	130			
Surr: Dibromofluoromethane	9.7		10.00		97.4	70	130			
Surr: Toluene-d8	9.7		10.00		97.3	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R13367			RunNo: 13367					
Prep Date:		Analysis Date: 9/13/2013			SeqNo: 380166		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	109	70	130			
Toluene	21	1.0	20.00	0	105	82.2	124			
Chlorobenzene	21	1.0	20.00	0	103	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R13367			RunNo: 13367					
Prep Date:		Analysis Date: 9/13/2013			SeqNo: 380166		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	24	1.0	20.00	0	118	83.5	155			
Trichloroethene (TCE)	20	1.0	20.00	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.1	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.5	70	130			
Surr: Dibromofluoromethane	10		10.00		99.6	70	130			
Surr: Toluene-d8	9.7		10.00		96.6	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	mb-9302	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	9302	RunNo:	13374					
Prep Date:	9/13/2013	Analysis Date:	9/13/2013	SeqNo:	380277	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	40								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	mb-9302	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	9302	RunNo:	13374					
Prep Date:	9/13/2013	Analysis Date:	9/13/2013	SeqNo:	380277	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: 2,4,6-Tribromophenol	140		200.0		68.8	41.5	117			
Surr: 2-Fluorobiphenyl	72		100.0		71.8	29.1	112			
Surr: 2-Fluorophenol	130		200.0		65.9	11.9	98.6			
Surr: 4-Terphenyl-d14	81		100.0		81.4	46	111			
Surr: Nitrobenzene-d5	77		100.0		77.4	34.9	112			
Surr: Phenol-d5	98		200.0		48.9	17.5	88.3			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	Ics-9302		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 9302		RunNo: 13374					
Prep Date:	9/13/2013		Analysis Date: 9/13/2013		SeqNo: 380279		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	72.2	53.3	92.5			
4-Chloro-3-methylphenol	170	10	200.0	0	84.1	55.9	93.9			
2-Chlorophenol	170	10	200.0	0	82.7	51.1	85.8			
1,4-Dichlorobenzene	70	10	100.0	0	70.0	41.5	86.7			
2,4-Dinitrotoluene	67	10	100.0	0	67.3	57.5	102			
N-Nitrosodi-n-propylamine	91	10	100.0	0	91.5	52.1	99.7			
4-Nitrophenol	82	10	200.0	0	41.0	27.2	53			
Pentachlorophenol	110	20	200.0	0	53.9	33.7	77.7			
Phenol	110	10	200.0	0	52.7	23.3	66.3			
Pyrene	98	10	100.0	0	98.0	57	88.7			S
1,2,4-Trichlorobenzene	75	10	100.0	0	75.4	46.7	87.8			
Surr: 2,4,6-Tribromophenol	150		200.0		76.8	41.5	117			
Surr: 2-Fluorobiphenyl	68		100.0		68.4	29.1	112			
Surr: 2-Fluorophenol	120		200.0		59.5	11.9	98.6			
Surr: 4-Terphenyl-d14	87		100.0		87.3	46	111			
Surr: Nitrobenzene-d5	80		100.0		79.6	34.9	112			
Surr: Phenol-d5	98		200.0		49.2	17.5	88.3			

Sample ID	1309397-003Dms	SampType: MS			TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	BatchQC	Batch ID: 9302			RunNo: 13374					
Prep Date:	9/13/2013	Analysis Date: 9/13/2013			SeqNo: 380320		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	81	20	100.0	0	80.5	70	130			
4-Chloro-3-methylphenol	160	20	200.0	0	78.3	70	130			
2-Chlorophenol	180	20	200.0	0	91.3	70	130			
1,4-Dichlorobenzene	86	20	100.0	0	85.6	70	130			
2,4-Dinitrotoluene	64	20	100.0	0	64.1	70	130			S
N-Nitrosodi-n-propylamine	100	20	100.0	0	102	70	130			
4-Nitrophenol	76	20	200.0	0	38.0	70	130			S
Pentachlorophenol	99	40	200.0	0	49.7	70	130			S
Phenol	110	20	200.0	0	53.6	70	130			S
Pyrene	98	20	100.0	0	98.0	70	130			
1,2,4-Trichlorobenzene	79	20	100.0	0	78.6	70	130			
Surr: 2,4,6-Tribromophenol	150		200.0		75.0	41.5	117			
Surr: 2-Fluorobiphenyl	89		100.0		89.0	29.1	112			
Surr: 2-Fluorophenol	140		200.0		71.7	11.9	98.6			
Surr: 4-Terphenyl-d14	94		100.0		94.4	46	111			
Surr: Nitrobenzene-d5	95		100.0		95.1	34.9	112			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309447

08-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	1309397-003Dms	SampType:	MS	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	BatchQC	Batch ID:	9302	RunNo:	13374					
Prep Date:	9/13/2013	Analysis Date:	9/13/2013	SeqNo:	380320	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Phenol-d5	120		200.0		60.7	17.5	88.3			

Sample ID	1309397-003Dmsd	SampType:	MSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	BatchQC	Batch ID:	9302	RunNo:	13374					
Prep Date:	9/13/2013	Analysis Date:	9/13/2013	SeqNo:	380322	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	79	20	100.0	0	79.1	70	130	1.80	20	
4-Chloro-3-methylphenol	160	20	200.0	0	81.0	70	130	3.34	20	
2-Chlorophenol	180	20	200.0	0	87.6	70	130	4.05	20	
1,4-Dichlorobenzene	79	20	100.0	0	79.4	70	130	7.52	20	
2,4-Dinitrotoluene	72	20	100.0	0	71.6	70	130	11.0	20	
N-Nitrosodi-n-propylamine	100	20	100.0	0	101	70	130	1.30	20	
4-Nitrophenol	79	20	200.0	0	39.7	70	130	4.37	20	S
Pentachlorophenol	110	40	200.0	0	54.7	70	130	9.50	20	S
Phenol	100	20	200.0	0	51.8	70	130	3.49	20	S
Pyrene	98	20	100.0	0	98.0	70	130	0.0408	20	
1,2,4-Trichlorobenzene	79	20	100.0	0	79.4	70	130	1.11	20	
Surr: 2,4,6-Tribromophenol	160		200.0		78.8	41.5	117	0	0	
Surr: 2-Fluorobiphenyl	88		100.0		88.4	29.1	112	0	0	
Surr: 2-Fluorophenol	140		200.0		67.8	11.9	98.6	0	0	
Surr: 4-Terphenyl-d14	90		100.0		89.6	46	111	0	0	
Surr: Nitrobenzene-d5	91		100.0		90.6	34.9	112	0	0	
Surr: Phenol-d5	110		200.0		57.2	17.5	88.3	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit



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

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1309447

RcptNo: 1

Received by/date: *mg*

09/11/13

Logged By: Ashley Gallegos

9/11/2013 11:10:00 AM

Completed By: Ashley Gallegos

9/12/2013 9:33:39 AM

Reviewed By: *mg*

09/12/13

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☒	No ☐	Not Present
2. Is Chain of Custody complete?	Yes ☒	No ☐	Not Present
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☒	No ☐	NA
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C	Yes ☒	No ☐	NA
6. Sample(s) in proper container(s)?	Yes ☒	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☒	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☒	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☒	NA
10. VOA vials have zero headspace?	Yes ☒	No ☐	No VOA Vials
11. Were any sample containers received broken?	Yes ☐	No ☒	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☒	No ☐	# of preserved bottles checked for pH: <i>9</i>
13. Are matrices correctly identified on Chain of Custody?	Yes ☒	No ☐	Adjusted? <i>NO</i>
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 ☐	Checked by: <i>[Signature]</i>

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	1.5	Good	Yes			



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

October 02, 2013

Cheryl Johnson

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

RE: 2013 Annual

OrderNo.: 1309441

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 9/11/2013 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 1309441

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: PW-3

Project: 2013 Annual

Collection Date: 9/10/2013 4:48:00 PM

Lab ID: 1309441-001

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Nitrogen, Nitrate (As N)	0.15	0.10		mg/L	1	9/11/2013 9:09:18 PM	R13315
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.011	0.0020		mg/L	1	9/16/2013 4:49:19 PM	R13406
Cadmium	ND	0.0020		mg/L	1	9/16/2013 4:49:19 PM	R13406
Chromium	ND	0.0060		mg/L	1	9/16/2013 4:49:19 PM	R13406
Copper	ND	0.0060		mg/L	1	9/16/2013 4:49:19 PM	R13406
Iron	0.28	0.020		mg/L	1	9/16/2013 4:49:19 PM	R13406
Manganese	0.0036	0.0020		mg/L	1	9/16/2013 4:49:19 PM	R13406
Silver	ND	0.025		mg/L	5	9/16/2013 5:06:10 PM	R13406
Zinc	0.029	0.010		mg/L	1	9/17/2013 1:24:19 PM	R13421
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.011	0.0020		mg/L	1	9/17/2013 3:52:11 PM	9304
Cadmium	ND	0.0020		mg/L	1	9/17/2013 3:52:11 PM	9304
Chromium	ND	0.0060		mg/L	1	9/17/2013 3:52:11 PM	9304
Copper	ND	0.0060		mg/L	1	9/17/2013 3:52:11 PM	9304
Iron	0.20	0.020		mg/L	1	9/17/2013 3:52:11 PM	9304
Manganese	0.0022	0.0020		mg/L	1	9/17/2013 3:52:11 PM	9304
Silver	ND	0.025		mg/L	5	9/17/2013 3:54:26 PM	9304
Zinc	0.014	0.010		mg/L	1	9/17/2013 3:52:11 PM	9304
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0037	0.0010		mg/L	1	9/23/2013 1:58:19 PM	R13540
Lead	ND	0.0010		mg/L	1	9/24/2013 2:35:27 PM	R13604
Selenium	0.0014	0.0010		mg/L	1	9/26/2013 2:18:25 PM	R13639
Uranium	0.0016	0.0010		mg/L	1	9/24/2013 2:35:27 PM	R13604
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0038	0.0010		mg/L	1	9/25/2013 2:12:11 PM	9304
Lead	ND	0.0010		mg/L	1	9/25/2013 2:12:11 PM	9304
Selenium	0.0011	0.0010		mg/L	1	9/25/2013 2:12:11 PM	9304
Uranium	0.0015	0.0010		mg/L	1	9/27/2013 12:35:13 PM	9304
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/24/2013 5:41:28 PM	9453
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Acenaphthylene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Aniline	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Anthracene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

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Lab ID: 1309441-001

Matrix: AQUEOUS

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Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Azobenzene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Benz(a)anthracene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Benzo(a)pyrene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Benzo(b)fluoranthene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Benzo(k)fluoranthene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Benzoic acid	ND	40		µg/L	1	9/13/2013 7:08:54 PM	9302
Benzyl alcohol	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Butyl benzyl phthalate	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Carbazole	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
4-Chloroaniline	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
2-Chloronaphthalene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
2-Chlorophenol	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Chrysene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Di-n-butyl phthalate	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Di-n-octyl phthalate	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Dibenzofuran	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
1,2-Dichlorobenzene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
1,3-Dichlorobenzene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
1,4-Dichlorobenzene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Diethyl phthalate	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Dimethyl phthalate	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
2,4-Dichlorophenol	ND	20		µg/L	1	9/13/2013 7:08:54 PM	9302
2,4-Dimethylphenol	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/13/2013 7:08:54 PM	9302
2,4-Dinitrophenol	ND	20		µg/L	1	9/13/2013 7:08:54 PM	9302
2,4-Dinitrotoluene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
2,6-Dinitrotoluene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Fluoranthene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Fluorene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302

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Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Hexachlorobenzene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Hexachlorobutadiene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Hexachloroethane	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Isophorone	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
1-Methylnaphthalene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
2-Methylnaphthalene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
2-Methylphenol	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
3+4-Methylphenol	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
N-Nitrosodimethylamine	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Naphthalene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
2-Nitroaniline	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
3-Nitroaniline	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
4-Nitroaniline	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Nitrobenzene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
2-Nitrophenol	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
4-Nitrophenol	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Pentachlorophenol	ND	20		µg/L	1	9/13/2013 7:08:54 PM	9302
Phenanthrene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Phenol	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Pyrene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Pyridine	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/13/2013 7:08:54 PM	9302
Surr: 2,4,6-Tribromophenol	50.3	41.5-117		%REC	1	9/13/2013 7:08:54 PM	9302
Surr: 2-Fluorobiphenyl	85.3	29.1-112		%REC	1	9/13/2013 7:08:54 PM	9302
Surr: 2-Fluorophenol	69.1	11.9-98.6		%REC	1	9/13/2013 7:08:54 PM	9302
Surr: 4-Terphenyl-d14	92.0	46-111		%REC	1	9/13/2013 7:08:54 PM	9302
Surr: Nitrobenzene-d5	92.9	34.9-112		%REC	1	9/13/2013 7:08:54 PM	9302
Surr: Phenol-d5	57.6	17.5-88.3		%REC	1	9/13/2013 7:08:54 PM	9302
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Toluene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Ethylbenzene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338

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	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Date Reported: 10/2/2013

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Lab ID: 1309441-001

Matrix: AQUEOUS

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Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Naphthalene	ND	2.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
2-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Acetone	ND	10		µg/L	1	9/12/2013 11:49:09 AM	R13338
Bromobenzene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Bromodichloromethane	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Bromoform	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Bromomethane	ND	3.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
2-Butanone	ND	10		µg/L	1	9/12/2013 11:49:09 AM	R13338
Carbon disulfide	ND	10		µg/L	1	9/12/2013 11:49:09 AM	R13338
Carbon Tetrachloride	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Chlorobenzene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Chloroethane	ND	2.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Chloroform	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Chloromethane	ND	3.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
2-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
4-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
cis-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Dibromochloromethane	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Dibromomethane	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1,1-Dichloroethane	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1,1-Dichloroethene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1,2-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1,3-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
2,2-Dichloropropane	ND	2.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1,1-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Hexachlorobutadiene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
2-Hexanone	ND	10		µg/L	1	9/12/2013 11:49:09 AM	R13338
Isopropylbenzene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338

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EPA METHOD 8260B: VOLATILES							Analyst: DJF
4-Isopropyltoluene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
4-Methyl-2-pentanone	ND	10		µg/L	1	9/12/2013 11:49:09 AM	R13338
Methylene Chloride	ND	3.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
n-Butylbenzene	ND	3.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
n-Propylbenzene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
sec-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Styrene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
tert-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
trans-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Trichlorofluoromethane	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Vinyl chloride	ND	1.0		µg/L	1	9/12/2013 11:49:09 AM	R13338
Xylenes, Total	ND	1.5		µg/L	1	9/12/2013 11:49:09 AM	R13338
Surr: 1,2-Dichloroethane-d4	90.3	70-130		%REC	1	9/12/2013 11:49:09 AM	R13338
Surr: 4-Bromofluorobenzene	84.5	70-130		%REC	1	9/12/2013 11:49:09 AM	R13338
Surr: Dibromofluoromethane	88.4	70-130		%REC	1	9/12/2013 11:49:09 AM	R13338
Surr: Toluene-d8	101	70-130		%REC	1	9/12/2013 11:49:09 AM	R13338

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	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309441

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: PW-4

Project: 2013 Annual

Collection Date: 9/10/2013 1:40:00 PM

Lab ID: 1309441-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Nitrogen, Nitrate (As N)	0.19	0.10		mg/L	1	9/11/2013 9:34:07 PM	R13315
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.014	0.0020		mg/L	1	9/16/2013 5:12:51 PM	R13406
Cadmium	ND	0.0020		mg/L	1	9/16/2013 5:12:51 PM	R13406
Chromium	ND	0.0060		mg/L	1	9/16/2013 5:12:51 PM	R13406
Copper	ND	0.0060		mg/L	1	9/16/2013 5:12:51 PM	R13406
Iron	0.12	0.020		mg/L	1	9/16/2013 5:12:51 PM	R13406
Manganese	0.0070	0.0020		mg/L	1	9/16/2013 5:12:51 PM	R13406
Silver	ND	0.025		mg/L	5	9/16/2013 5:14:59 PM	R13406
Zinc	ND	0.010		mg/L	1	9/17/2013 1:39:31 PM	R13421
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.014	0.0020		mg/L	1	9/17/2013 3:56:46 PM	9304
Cadmium	ND	0.0020		mg/L	1	9/17/2013 3:56:46 PM	9304
Chromium	ND	0.0060		mg/L	1	9/17/2013 3:56:46 PM	9304
Copper	ND	0.0060		mg/L	1	9/17/2013 3:56:46 PM	9304
Iron	1.5	0.10	*	mg/L	5	9/17/2013 3:58:47 PM	9304
Manganese	0.014	0.0020		mg/L	1	9/17/2013 3:56:46 PM	9304
Silver	ND	0.025		mg/L	5	9/17/2013 3:58:47 PM	9304
Zinc	0.025	0.010		mg/L	1	9/17/2013 3:56:46 PM	9304
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0030	0.0010		mg/L	1	9/23/2013 2:00:58 PM	R13540
Lead	ND	0.0010		mg/L	1	9/24/2013 2:43:30 PM	R13604
Selenium	0.0012	0.0010		mg/L	1	9/26/2013 2:21:05 PM	R13639
Uranium	0.0016	0.0010		mg/L	1	9/24/2013 2:43:30 PM	R13604
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0029	0.0010		mg/L	1	9/25/2013 2:14:34 PM	9304
Lead	ND	0.0010		mg/L	1	9/25/2013 2:14:34 PM	9304
Selenium	0.0012	0.0010		mg/L	1	9/25/2013 2:14:34 PM	9304
Uranium	0.0017	0.0010		mg/L	1	9/27/2013 12:37:37 PM	9304
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/24/2013 5:46:46 PM	9453
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Acenaphthylene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Aniline	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Anthracene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309441

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: PW-4

Project: 2013 Annual

Collection Date: 9/10/2013 1:40:00 PM

Lab ID: 1309441-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Azobenzene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Benz(a)anthracene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Benzo(a)pyrene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Benzo(b)fluoranthene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Benzo(k)fluoranthene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Benzoic acid	ND	40		µg/L	1	9/13/2013 7:37:38 PM	9302
Benzyl alcohol	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Butyl benzyl phthalate	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Carbazole	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
4-Chloroaniline	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
2-Chloronaphthalene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
2-Chlorophenol	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Chrysene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Di-n-butyl phthalate	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Di-n-octyl phthalate	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Dibenzofuran	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
1,2-Dichlorobenzene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
1,3-Dichlorobenzene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
1,4-Dichlorobenzene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Diethyl phthalate	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Dimethyl phthalate	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
2,4-Dichlorophenol	ND	20		µg/L	1	9/13/2013 7:37:38 PM	9302
2,4-Dimethylphenol	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/13/2013 7:37:38 PM	9302
2,4-Dinitrophenol	ND	20		µg/L	1	9/13/2013 7:37:38 PM	9302
2,4-Dinitrotoluene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
2,6-Dinitrotoluene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Fluoranthene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Fluorene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309441

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: PW-4

Project: 2013 Annual

Collection Date: 9/10/2013 1:40:00 PM

Lab ID: 1309441-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Hexachlorobenzene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Hexachlorobutadiene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Hexachloroethane	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Isophorone	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
1-Methylnaphthalene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
2-Methylnaphthalene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
2-Methylphenol	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
3+4-Methylphenol	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
N-Nitrosodimethylamine	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Naphthalene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
2-Nitroaniline	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
3-Nitroaniline	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
4-Nitroaniline	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Nitrobenzene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
2-Nitrophenol	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
4-Nitrophenol	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Pentachlorophenol	ND	20		µg/L	1	9/13/2013 7:37:38 PM	9302
Phenanthrene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Phenol	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Pyrene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Pyridine	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/13/2013 7:37:38 PM	9302
Surr: 2,4,6-Tribromophenol	51.3	41.5-117		%REC	1	9/13/2013 7:37:38 PM	9302
Surr: 2-Fluorobiphenyl	78.1	29.1-112		%REC	1	9/13/2013 7:37:38 PM	9302
Surr: 2-Fluorophenol	68.5	11.9-98.6		%REC	1	9/13/2013 7:37:38 PM	9302
Surr: 4-Terphenyl-d14	79.1	46-111		%REC	1	9/13/2013 7:37:38 PM	9302
Surr: Nitrobenzene-d5	80.8	34.9-112		%REC	1	9/13/2013 7:37:38 PM	9302
Surr: Phenol-d5	52.1	17.5-88.3		%REC	1	9/13/2013 7:37:38 PM	9302
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Toluene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Ethylbenzene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309441

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: PW-4

Project: 2013 Annual

Collection Date: 9/10/2013 1:40:00 PM

Lab ID: 1309441-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
1,2,4-Trimethylbenzene	6.8	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1,3,5-Trimethylbenzene	2.3	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Naphthalene	ND	2.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
2-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Acetone	ND	10		µg/L	1	9/12/2013 1:56:08 PM	R13338
Bromobenzene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Bromodichloromethane	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Bromoform	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Bromomethane	ND	3.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
2-Butanone	ND	10		µg/L	1	9/12/2013 1:56:08 PM	R13338
Carbon disulfide	ND	10		µg/L	1	9/12/2013 1:56:08 PM	R13338
Carbon Tetrachloride	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Chlorobenzene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Chloroethane	ND	2.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Chloroform	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Chloromethane	ND	3.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
2-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
4-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
cis-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Dibromochloromethane	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Dibromomethane	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1,1-Dichloroethane	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1,1-Dichloroethene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1,2-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1,3-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
2,2-Dichloropropane	ND	2.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1,1-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Hexachlorobutadiene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
2-Hexanone	ND	10		µg/L	1	9/12/2013 1:56:08 PM	R13338
Isopropylbenzene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309441

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: PW-4

Project: 2013 Annual

Collection Date: 9/10/2013 1:40:00 PM

Lab ID: 1309441-002

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
4-Isopropyltoluene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
4-Methyl-2-pentanone	ND	10		µg/L	1	9/12/2013 1:56:08 PM	R13338
Methylene Chloride	ND	3.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
n-Butylbenzene	ND	3.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
n-Propylbenzene	1.3	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
sec-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Styrene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
tert-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
trans-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Trichlorofluoromethane	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Vinyl chloride	ND	1.0		µg/L	1	9/12/2013 1:56:08 PM	R13338
Xylenes, Total	ND	1.5		µg/L	1	9/12/2013 1:56:08 PM	R13338
Surr: 1,2-Dichloroethane-d4	92.7	70-130		%REC	1	9/12/2013 1:56:08 PM	R13338
Surr: 4-Bromofluorobenzene	86.9	70-130		%REC	1	9/12/2013 1:56:08 PM	R13338
Surr: Dibromofluoromethane	93.5	70-130		%REC	1	9/12/2013 1:56:08 PM	R13338
Surr: Toluene-d8	92.1	70-130		%REC	1	9/12/2013 1:56:08 PM	R13338

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309441

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-12

Project: 2013 Annual

Collection Date: 9/10/2013 4:18:00 PM

Lab ID: 1309441-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.022	0.0020		mg/L	1	9/16/2013 5:17:18 PM	R13406
Cadmium	ND	0.0020		mg/L	1	9/16/2013 5:17:18 PM	R13406
Calcium	2.0	1.0		mg/L	1	9/16/2013 5:17:18 PM	R13406
Chromium	ND	0.0060		mg/L	1	9/16/2013 5:17:18 PM	R13406
Copper	ND	0.0060		mg/L	1	9/16/2013 5:17:18 PM	R13406
Iron	0.048	0.020		mg/L	1	9/16/2013 5:17:18 PM	R13406
Magnesium	ND	1.0		mg/L	1	9/16/2013 5:17:18 PM	R13406
Manganese	0.0021	0.0020		mg/L	1	9/16/2013 5:17:18 PM	R13406
Potassium	1.3	1.0		mg/L	1	9/16/2013 5:17:18 PM	R13406
Silver	ND	0.025		mg/L	5	9/16/2013 5:19:32 PM	R13406
Sodium	240	5.0		mg/L	5	9/16/2013 5:19:32 PM	R13406
Zinc	0.014	0.010		mg/L	1	9/17/2013 1:43:59 PM	R13421
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.027	0.0020		mg/L	1	9/17/2013 4:01:12 PM	9304
Cadmium	ND	0.0020		mg/L	1	9/17/2013 4:01:12 PM	9304
Chromium	ND	0.0060		mg/L	1	9/17/2013 4:01:12 PM	9304
Copper	ND	0.0060		mg/L	1	9/17/2013 4:01:12 PM	9304
Iron	0.17	0.020		mg/L	1	9/17/2013 4:01:12 PM	9304
Manganese	0.0090	0.0020		mg/L	1	9/17/2013 4:01:12 PM	9304
Silver	ND	0.025		mg/L	5	9/17/2013 4:03:25 PM	9304
Zinc	ND	0.010		mg/L	1	9/17/2013 4:01:12 PM	9304
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0020	0.0010		mg/L	1	9/23/2013 2:14:17 PM	R13540
Lead	ND	0.0010		mg/L	1	9/24/2013 2:48:49 PM	R13604
Selenium	ND	0.0010		mg/L	1	9/26/2013 2:29:03 PM	R13639
Uranium	0.013	0.0010		mg/L	1	9/24/2013 2:48:49 PM	R13604
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0019	0.0010		mg/L	1	9/25/2013 2:16:57 PM	9304
Lead	ND	0.0010		mg/L	1	9/25/2013 2:16:57 PM	9304
Selenium	ND	0.0010		mg/L	1	9/25/2013 2:16:57 PM	9304
Uranium	0.013	0.0010		mg/L	1	9/27/2013 12:40:00 PM	9304
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/24/2013 5:48:33 PM	9453
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Acenaphthylene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Aniline	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309441

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-12

Project: 2013 Annual

Collection Date: 9/10/2013 4:18:00 PM

Lab ID: 1309441-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Anthracene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Azobenzene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Benz(a)anthracene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Benzo(a)pyrene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Benzo(b)fluoranthene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Benzo(k)fluoranthene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Benzoic acid	ND	40		µg/L	1	9/13/2013 8:06:20 PM	9302
Benzyl alcohol	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Butyl benzyl phthalate	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Carbazole	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
4-Chloroaniline	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
2-Chloronaphthalene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
2-Chlorophenol	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Chrysene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Di-n-butyl phthalate	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Di-n-octyl phthalate	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Dibenzofuran	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
1,2-Dichlorobenzene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
1,3-Dichlorobenzene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
1,4-Dichlorobenzene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Diethyl phthalate	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Dimethyl phthalate	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
2,4-Dichlorophenol	ND	20		µg/L	1	9/13/2013 8:06:20 PM	9302
2,4-Dimethylphenol	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/13/2013 8:06:20 PM	9302
2,4-Dinitrophenol	ND	20		µg/L	1	9/13/2013 8:06:20 PM	9302
2,4-Dinitrotoluene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
2,6-Dinitrotoluene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Fluoranthene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309441

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-12

Project: 2013 Annual

Collection Date: 9/10/2013 4:18:00 PM

Lab ID: 1309441-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Fluorene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Hexachlorobenzene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Hexachlorobutadiene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Hexachloroethane	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Isophorone	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
1-Methylnaphthalene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
2-Methylnaphthalene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
2-Methylphenol	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
3+4-Methylphenol	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
N-Nitrosodimethylamine	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Naphthalene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
2-Nitroaniline	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
3-Nitroaniline	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
4-Nitroaniline	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Nitrobenzene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
2-Nitrophenol	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
4-Nitrophenol	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Pentachlorophenol	ND	20		µg/L	1	9/13/2013 8:06:20 PM	9302
Phenanthrene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Phenol	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Pyrene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Pyridine	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/13/2013 8:06:20 PM	9302
Surr: 2,4,6-Tribromophenol	53.0	41.5-117		%REC	1	9/13/2013 8:06:20 PM	9302
Surr: 2-Fluorobiphenyl	73.2	29.1-112		%REC	1	9/13/2013 8:06:20 PM	9302
Surr: 2-Fluorophenol	65.0	11.9-98.6		%REC	1	9/13/2013 8:06:20 PM	9302
Surr: 4-Terphenyl-d14	85.2	46-111		%REC	1	9/13/2013 8:06:20 PM	9302
Surr: Nitrobenzene-d5	75.0	34.9-112		%REC	1	9/13/2013 8:06:20 PM	9302
Surr: Phenol-d5	50.9	17.5-88.3		%REC	1	9/13/2013 8:06:20 PM	9302
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Toluene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Ethylbenzene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309441

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-12

Project: 2013 Annual

Collection Date: 9/10/2013 4:18:00 PM

Lab ID: 1309441-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Naphthalene	ND	2.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
2-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Acetone	ND	10		µg/L	1	9/12/2013 2:27:55 PM	R13338
Bromobenzene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Bromodichloromethane	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Bromoform	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Bromomethane	ND	3.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
2-Butanone	ND	10		µg/L	1	9/12/2013 2:27:55 PM	R13338
Carbon disulfide	ND	10		µg/L	1	9/12/2013 2:27:55 PM	R13338
Carbon Tetrachloride	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Chlorobenzene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Chloroethane	ND	2.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Chloroform	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Chloromethane	ND	3.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
2-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
4-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
cis-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Dibromochloromethane	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Dibromomethane	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,1-Dichloroethane	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,1-Dichloroethene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,2-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,3-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
2,2-Dichloropropane	ND	2.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,1-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Hexachlorobutadiene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
2-Hexanone	ND	10		µg/L	1	9/12/2013 2:27:55 PM	R13338

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309441

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-12

Project: 2013 Annual

Collection Date: 9/10/2013 4:18:00 PM

Lab ID: 1309441-003

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Isopropylbenzene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
4-Isopropyltoluene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
4-Methyl-2-pentanone	ND	10		µg/L	1	9/12/2013 2:27:55 PM	R13338
Methylene Chloride	ND	3.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
n-Butylbenzene	ND	3.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
n-Propylbenzene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
sec-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Styrene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
tert-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
trans-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Trichlorofluoromethane	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Vinyl chloride	ND	1.0		µg/L	1	9/12/2013 2:27:55 PM	R13338
Xylenes, Total	ND	1.5		µg/L	1	9/12/2013 2:27:55 PM	R13338
Surr: 1,2-Dichloroethane-d4	87.9	70-130		%REC	1	9/12/2013 2:27:55 PM	R13338
Surr: 4-Bromofluorobenzene	86.1	70-130		%REC	1	9/12/2013 2:27:55 PM	R13338
Surr: Dibromofluoromethane	87.2	70-130		%REC	1	9/12/2013 2:27:55 PM	R13338
Surr: Toluene-d8	92.2	70-130		%REC	1	9/12/2013 2:27:55 PM	R13338

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309441

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 Annual

Collection Date: 9/10/2013 1:00:00 PM

Lab ID: 1309441-004

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Toluene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Ethylbenzene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Naphthalene	ND	2.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
2-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Acetone	ND	10		µg/L	1	9/12/2013 2:59:41 PM	R13338
Bromobenzene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Bromodichloromethane	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Bromoform	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Bromomethane	ND	3.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
2-Butanone	ND	10		µg/L	1	9/12/2013 2:59:41 PM	R13338
Carbon disulfide	ND	10		µg/L	1	9/12/2013 2:59:41 PM	R13338
Carbon Tetrachloride	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Chlorobenzene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Chloroethane	ND	2.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Chloroform	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Chloromethane	ND	3.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
2-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
4-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
cis-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Dibromochloromethane	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Dibromomethane	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1,1-Dichloroethane	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1,1-Dichloroethene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1,2-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1,3-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
2,2-Dichloropropane	ND	2.0		µg/L	1	9/12/2013 2:59:41 PM	R13338

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1309441**

Date Reported: **10/2/2013**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2013 Annual

Collection Date: 9/10/2013 1:00:00 PM

Lab ID: 1309441-004

Matrix: AQUEOUS

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Hexachlorobutadiene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
2-Hexanone	ND	10		µg/L	1	9/12/2013 2:59:41 PM	R13338
Isopropylbenzene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
4-Isopropyltoluene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
4-Methyl-2-pentanone	ND	10		µg/L	1	9/12/2013 2:59:41 PM	R13338
Methylene Chloride	ND	3.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
n-Butylbenzene	ND	3.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
n-Propylbenzene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
sec-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Styrene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
tert-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
trans-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Trichlorofluoromethane	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Vinyl chloride	ND	1.0		µg/L	1	9/12/2013 2:59:41 PM	R13338
Xylenes, Total	ND	1.5		µg/L	1	9/12/2013 2:59:41 PM	R13338
Surr: 1,2-Dichloroethane-d4	96.2	70-130		%REC	1	9/12/2013 2:59:41 PM	R13338
Surr: 4-Bromofluorobenzene	86.3	70-130		%REC	1	9/12/2013 2:59:41 PM	R13338
Surr: Dibromofluoromethane	88.7	70-130		%REC	1	9/12/2013 2:59:41 PM	R13338
Surr: Toluene-d8	97.3	70-130		%REC	1	9/12/2013 2:59:41 PM	R13338

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1309441**

Date Reported: **10/2/2013**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 Annual

Collection Date:

Lab ID: 1309441-005

Matrix: TRIP BLANK

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Toluene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Ethylbenzene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Naphthalene	ND	2.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
2-Methylnaphthalene	ND	4.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Acetone	ND	10		µg/L	1	9/12/2013 3:31:30 PM	R13338
Bromobenzene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Bromodichloromethane	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Bromoform	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Bromomethane	ND	3.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
2-Butanone	ND	10		µg/L	1	9/12/2013 3:31:30 PM	R13338
Carbon disulfide	ND	10		µg/L	1	9/12/2013 3:31:30 PM	R13338
Carbon Tetrachloride	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Chlorobenzene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Chloroethane	ND	2.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Chloroform	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Chloromethane	ND	3.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
2-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
4-Chlorotoluene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
cis-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Dibromochloromethane	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Dibromomethane	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1,1-Dichloroethane	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1,1-Dichloroethene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1,2-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1,3-Dichloropropane	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
2,2-Dichloropropane	ND	2.0		µg/L	1	9/12/2013 3:31:30 PM	R13338

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309441

Date Reported: 10/2/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 Annual

Collection Date:

Lab ID: 1309441-005

Matrix: TRIP BLANK

Received Date: 9/11/2013 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Hexachlorobutadiene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
2-Hexanone	ND	10		µg/L	1	9/12/2013 3:31:30 PM	R13338
Isopropylbenzene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
4-Isopropyltoluene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
4-Methyl-2-pentanone	ND	10		µg/L	1	9/12/2013 3:31:30 PM	R13338
Methylene Chloride	ND	3.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
n-Butylbenzene	ND	3.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
n-Propylbenzene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
sec-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Styrene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
tert-Butylbenzene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
trans-1,2-DCE	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Trichlorofluoromethane	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Vinyl chloride	ND	1.0		µg/L	1	9/12/2013 3:31:30 PM	R13338
Xylenes, Total	ND	1.5		µg/L	1	9/12/2013 3:31:30 PM	R13338
Surr: 1,2-Dichloroethane-d4	94.1	70-130		%REC	1	9/12/2013 3:31:30 PM	R13338
Surr: 4-Bromofluorobenzene	91.0	70-130		%REC	1	9/12/2013 3:31:30 PM	R13338
Surr: Dibromofluoromethane	94.3	70-130		%REC	1	9/12/2013 3:31:30 PM	R13338
Surr: Toluene-d8	96.3	70-130		%REC	1	9/12/2013 3:31:30 PM	R13338

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Anatek Labs, Inc.

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

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

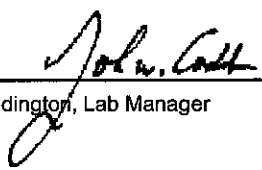
Batch #: 130916004
Project Name: 1309441

Analytical Results Report

Sample Number	130916004-001	Sampling Date	9/10/2013	Date/Time Received	9/13/2013	11:10 AM	
Client Sample ID	1309441-001F / PW-3	Sampling Time	4:48 PM				
Matrix	Water						
Comments							
Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	9/24/2013	CRW	EPA 335.4	

Sample Number	130916004-002	Sampling Date	9/10/2013	Date/Time Received	9/13/2013	11:10 AM	
Client Sample ID	1309441-002F / PW-4	Sampling Time	1:40 PM				
Matrix	Water						
Comments							
Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	9/24/2013	CRW	EPA 335.4	

Authorized Signature


John Coddington, Lab Manager

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

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

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM:ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

Tuesday, October 01, 2013

Page 1 of 1

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID MB	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PBW	Batch ID: R13406		RunNo: 13406							
Prep Date:	Analysis Date: 9/16/2013		SeqNo: 381243		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								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: LCSW	Batch ID: R13406		RunNo: 13406							
Prep Date:	Analysis Date: 9/16/2013		SeqNo: 381244		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.53	0.0020	0.5000	0	105	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Calcium	53	1.0	50.00	0	107	85	115			
Chromium	0.51	0.0060	0.5000	0	102	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.56	0.020	0.5000	0	112	85	115			
Magnesium	53	1.0	50.00	0	105	85	115			
Manganese	0.51	0.0020	0.5000	0	101	85	115			
Potassium	52	1.0	50.00	0	104	85	115			
Silver	0.089	0.0050	0.1000	0	89.1	85	115			
Sodium	53	1.0	50.00	0	106	85	115			

Sample ID 1309206-002AMS	SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: R13406		RunNo: 13406							
Prep Date:	Analysis Date: 9/16/2013		SeqNo: 381296		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.48	0.0020	0.5000	0.003550	95.3	70	130			
Cadmium	0.50	0.0020	0.5000	0.02356	96.1	70	130			
Chromium	0.46	0.0060	0.5000	0	91.2	70	130			
Copper	0.98	0.0060	0.5000	0.5008	95.2	70	130			
Iron	0.51	0.020	0.5000	0.01444	99.0	70	130			
Potassium	49	1.0	50.00	2.450	92.8	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	1309206-002AMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R13406		RunNo: 13406					
Prep Date:			Analysis Date: 9/16/2013		SeqNo: 381296		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	66	1.0	50.00	18.98	94.5	70	130			

Sample ID	1309206-002AMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R13406		RunNo: 13406					
Prep Date:			Analysis Date: 9/16/2013		SeqNo: 381297		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0.003550	92.6	70	130	2.84	20	
Cadmium	0.49	0.0020	0.5000	0.02356	93.7	70	130	2.39	20	
Chromium	0.45	0.0060	0.5000	0	90.5	70	130	0.748	20	
Copper	0.94	0.0060	0.5000	0.5008	88.7	70	130	3.41	20	
Iron	0.51	0.020	0.5000	0.01444	98.1	70	130	0.875	20	
Potassium	49	1.0	50.00	2.450	93.4	70	130	0.572	20	
Sodium	66	1.0	50.00	18.98	94.8	70	130	0.214	20	

Sample ID	1309206-002AMS	SampType: MS			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID: R13406			RunNo: 13406					
Prep Date:		Analysis Date: 9/16/2013			SeqNo: 381299		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	440	5.0	250.0	169.2	107	70	130			
Magnesium	340	5.0	250.0	79.00	103	70	130			
Silver	0.44	0.025	0.5000	0	88.2	70	130			

Sample ID	1309206-002AMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R13406		RunNo: 13406					
Prep Date:			Analysis Date: 9/16/2013		SeqNo: 381300		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	440	5.0	250.0	169.2	108	70	130	0.657	20	
Magnesium	340	5.0	250.0	79.00	104	70	130	0.906	20	
Silver	0.44	0.025	0.5000	0	88.8	70	130	0.633	20	

Sample ID	1309441-001EMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PW-3		Batch ID: R13406		RunNo: 13406					
Prep Date:			Analysis Date: 9/16/2013		SeqNo: 381328		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.54	0.0020	0.5000	0.01086	106	70	130			
Cadmium	0.52	0.0020	0.5000	0	105	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID 1309441-001EMS	SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PW-3	Batch ID: R13406		RunNo: 13406							
Prep Date:	Analysis Date: 9/16/2013		SeqNo: 381328		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.51	0.0060	0.5000	0	103	70	130			
Copper	0.50	0.0060	0.5000	0	101	70	130			
Iron	0.81	0.020	0.5000	0.2837	106	70	130			
Manganese	0.51	0.0020	0.5000	0.003600	102	70	130			

Sample ID 1309441-001EMSD	SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PW-3	Batch ID: R13406		RunNo: 13406							
Prep Date:	Analysis Date: 9/16/2013		SeqNo: 381329		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.55	0.0020	0.5000	0.01086	108	70	130	1.86	20	
Cadmium	0.53	0.0020	0.5000	0	107	70	130	2.04	20	
Chromium	0.51	0.0060	0.5000	0	103	70	130	0.0292	20	
Copper	0.51	0.0060	0.5000	0	102	70	130	1.38	20	
Iron	0.82	0.020	0.5000	0.2837	106	70	130	0.403	20	
Manganese	0.52	0.0020	0.5000	0.003600	104	70	130	1.87	20	

Sample ID 1309441-001EMS	SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PW-3	Batch ID: R13406		RunNo: 13406							
Prep Date:	Analysis Date: 9/16/2013		SeqNo: 381331		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.46	0.025	0.5000	0.02075	86.9	70	130			

Sample ID 1309441-001EMSD	SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PW-3	Batch ID: R13406		RunNo: 13406							
Prep Date:	Analysis Date: 9/16/2013		SeqNo: 381332		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.47	0.025	0.5000	0.02075	90.5	70	130	3.96	20	

Sample ID MB	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PBW	Batch ID: R13421		RunNo: 13421							
Prep Date:	Analysis Date: 9/17/2013		SeqNo: 381764		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R13421		RunNo: 13421					
Prep Date:			Analysis Date: 9/17/2013		SeqNo: 381765		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.52	0.010	0.5000	0	104	85	115			

Sample ID	1309441-001EMS		SampType: MS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	PW-3		Batch ID: R13421			RunNo: 13421				
Prep Date:			Analysis Date: 9/17/2013			SeqNo: 382040		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.55	0.010	0.5000	0.02891	105	70	130			

Sample ID	1309441-001EMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PW-3		Batch ID: R13421		RunNo: 13421					
Prep Date:			Analysis Date: 9/17/2013		SeqNo: 382041		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.55	0.010	0.5000	0.02891	105	70	130	0.405	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB-9304		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 9304		RunNo: 13406					
Prep Date:	9/13/2013		Analysis Date: 9/16/2013		SeqNo: 381359		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-9304		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 9304		RunNo: 13406					
Prep Date:	9/13/2013		Analysis Date: 9/16/2013		SeqNo: 381360		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	103	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	98.7	85	115			
Copper	0.49	0.0060	0.5000	0	99.0	85	115			
Iron	0.53	0.020	0.5000	0	107	85	115			
Manganese	0.49	0.0020	0.5000	0	98.5	85	115			
Silver	0.089	0.0050	0.1000	0	88.6	85	115			
Zinc	0.52	0.010	0.5000	0	105	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	1309441-002EMS			SampType:	MS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	PW-4			Batch ID:	R13540			RunNo:	13540		
Prep Date:				Analysis Date:	9/23/2013			SeqNo:	385146		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.030	0.0010	0.02500	0.002959	107	70	130				

Sample ID	1309441-002EMSD			SampType:	MSD			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	PW-4			Batch ID:	R13540			RunNo:	13540		
Prep Date:				Analysis Date:	9/23/2013			SeqNo:	385147		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.030	0.0010	0.02500	0.002959	106	70	130	0.464	20		

Sample ID	1309447-003GMS			SampType:	MS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	R13540			RunNo:	13540		
Prep Date:				Analysis Date:	9/23/2013			SeqNo:	385154		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.028	0.0010	0.02500	0.002636	99.5	70	130				

Sample ID	LCS			SampType:	LCS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	LCSW			Batch ID:	R13540			RunNo:	13540		
Prep Date:				Analysis Date:	9/23/2013			SeqNo:	385193		
								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				

Sample ID	LCS			SampType:	LCS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	LCSW			Batch ID:	R13540			RunNo:	13540		
Prep Date:				Analysis Date:	9/23/2013			SeqNo:	385194		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.025	0.0010	0.02500	0	100	85	115				

Sample ID	LCS			SampType:	LCS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	LCSW			Batch ID:	R13540			RunNo:	13540		
Prep Date:				Analysis Date:	9/23/2013			SeqNo:	385195		
								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	102	85	115				

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385196		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	102	85	115			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385197		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385198		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385199		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13540			RunNo: 13540						
Prep Date:	Analysis Date: 9/23/2013			SeqNo: 385200		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID 1309441-002EMS	SampType: MS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PW-4	Batch ID: R13604			RunNo: 13604						
Prep Date:	Analysis Date: 9/24/2013			SeqNo: 387376		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.026	0.0010	0.02500	.00002626	103	70	130			
Uranium	0.030	0.0010	0.02500	0.001644	115	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R13604			RunNo: 13604						
Prep Date:	Analysis Date: 9/24/2013			SeqNo: 387399			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.027	0.0010	0.02500	0	107	85	115			

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R13604			RunNo: 13604						
Prep Date:	Analysis Date: 9/24/2013			SeqNo: 387400			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	98.2	85	115			
Uranium	0.023	0.0010	0.02500	0	92.4	85	115			

Sample ID LCS-rr	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R13604			RunNo: 13604						
Prep Date:	Analysis Date: 9/24/2013			SeqNo: 387401			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.026	0.0010	0.02500	0	104	85	115			
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID LCS-rr	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R13604			RunNo: 13604						
Prep Date:	Analysis Date: 9/24/2013			SeqNo: 387402			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	98.4	85	115			
Uranium	0.027	0.0010	0.02500	0	106	85	115			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13604			RunNo: 13604						
Prep Date:	Analysis Date: 9/24/2013			SeqNo: 387403			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R13604			RunNo: 13604						
Prep Date:	Analysis Date: 9/24/2013			SeqNo: 387404			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R13604		RunNo: 13604							
Prep Date:	Analysis Date: 9/24/2013		SeqNo: 387404		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID MB-rr	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R13604		RunNo: 13604							
Prep Date:	Analysis Date: 9/24/2013		SeqNo: 387405		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID MB-rr	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R13604		RunNo: 13604							
Prep Date:	Analysis Date: 9/24/2013		SeqNo: 387406		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: R13639		RunNo: 13639							
Prep Date:	Analysis Date: 9/26/2013		SeqNo: 388441		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	98.8	85	115			

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R13639		RunNo: 13639							
Prep Date:	Analysis Date: 9/26/2013		SeqNo: 388442		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID 1309441-002EMS	SampType: MS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PW-4	Batch ID: R13639		RunNo: 13639							
Prep Date:	Analysis Date: 9/26/2013		SeqNo: 388782		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0.001212	96.6	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	1309441-002EMSD		SampType: MSD		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PW-4		Batch ID: R13639		RunNo: 13639					
Prep Date:			Analysis Date: 9/26/2013		SeqNo: 388783		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.026	0.0010	0.02500	0.001212	98.0	70	130	1.30	20	

Sample ID	1309447-003GMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R13639		RunNo: 13639					
Prep Date:			Analysis Date: 9/26/2013		SeqNo: 388791		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.023	0.0010	0.02500	0.0007799	90.2	70	130			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R13639		RunNo: 13639					
Prep Date:			Analysis Date: 9/26/2013		SeqNo: 388822		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID	MB	SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R13639		RunNo:	13639					
Prep Date:		Analysis Date:	9/26/2013		SeqNo:	388823		Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium		ND	0.0010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	LLLCS-9304		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 9304		RunNo: 13436					
Prep Date:	9/13/2013		Analysis Date: 9/17/2013		SeqNo: 382323		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.025	0.0010	0.02500	0	100	85	115			
Selenium	0.025	0.0010	0.02500	0	99.1	85	115			
Uranium	0.026	0.0010	0.02500	0	105	85	115			

Sample ID	MB-9304		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 9304		RunNo: 13436					
Prep Date:	9/13/2013		Analysis Date: 9/17/2013		SeqNo: 382324		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	1309473-006ALLMS		SampType: MSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 9304		RunNo: 13621					
Prep Date:	9/13/2013		Analysis Date: 9/25/2013		SeqNo: 387806		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.038	0.0010	0.02500	0.01169	106	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	MB-9453		SampType: mblk		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 9453		RunNo: 13591					
Prep Date:	9/24/2013		Analysis Date: 9/24/2013		SeqNo: 386838		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-9453		SampType: lcs		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 9453		RunNo: 13591					
Prep Date:	9/24/2013		Analysis Date: 9/24/2013		SeqNo: 386839		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.7	80	120			

Sample ID	1309441-001DMS		SampType: ms		TestCode: EPA Method 245.1: Mercury					
Client ID:	PW-3		Batch ID: 9453		RunNo: 13591					
Prep Date:	9/24/2013		Analysis Date: 9/24/2013		SeqNo: 386842		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.5	75	125			

Sample ID	1309441-001DMSD			SampType:	msd		TestCode:	EPA Method 245.1: Mercury			
Client ID:	PW-3			Batch ID:	9453		RunNo:	13591			
Prep Date:	9/24/2013			Analysis Date:	9/24/2013		SeqNo:	386843		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0049	0.00020	0.005000	0	99.0	75	125	0.444	20		

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R13315			RunNo: 13315						
Prep Date:	Analysis Date: 9/11/2013			SeqNo: 378706		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	ND	0.10								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R13315			RunNo: 13315						
Prep Date:	Analysis Date: 9/11/2013			SeqNo: 378707		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	100	90	110			

Sample ID 1309402-001NMS	SampType: MS			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R13315			RunNo: 13315						
Prep Date:	Analysis Date: 9/11/2013			SeqNo: 378710		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	12	0.50	12.50	0	97.7	93	113			

Sample ID 1309402-001NMSD	SampType: MSD			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R13315			RunNo: 13315						
Prep Date:	Analysis Date: 9/11/2013			SeqNo: 378711		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	13	0.50	12.50	0	100	93	113	2.55	20	

Sample ID 1309399-001CMS	SampType: MS			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R13315			RunNo: 13315						
Prep Date:	Analysis Date: 9/11/2013			SeqNo: 378719		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	3.0	0.10	2.500	0.5082	101	93	113			

Sample ID 1309399-001CMSD	SampType: MSD			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R13315			RunNo: 13315						
Prep Date:	Analysis Date: 9/11/2013			SeqNo: 378720		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	3.1	0.10	2.500	0.5082	102	93	113	0.377	20	

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R13338			RunNo: 13338					
Prep Date:		Analysis Date: 9/12/2013			SeqNo: 379459		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R13338			RunNo: 13338					
Prep Date:		Analysis Date: 9/12/2013			SeqNo: 379459		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	8.8		10.00		88.1	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.8	70	130			
Surr: Toluene-d8	9.8		10.00		98.4	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R13338			RunNo: 13338					
Prep Date:		Analysis Date: 9/12/2013			SeqNo: 379461		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130			
Toluene	19	1.0	20.00	0	94.9	82.2	124			
Chlorobenzene	19	1.0	20.00	0	95.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R13338			RunNo: 13338						
Prep Date:	Analysis Date: 9/12/2013			SeqNo: 379461		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	104	83.5	155			
Trichloroethene (TCE)	19	1.0	20.00	0	96.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.9	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		87.3	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.4	70	130			
Surr: Toluene-d8	9.1		10.00		91.1	70	130			

Sample ID 1309441-001ams	SampType: MS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PW-3	Batch ID: R13338			RunNo: 13338						
Prep Date:	Analysis Date: 9/12/2013			SeqNo: 379466		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	86.1	67.9	137			
Toluene	19	1.0	20.00	0	96.5	77	127			
Chlorobenzene	18	1.0	20.00	0	91.2	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	99.8	66.5	131			
Trichloroethene (TCE)	17	1.0	20.00	0	84.5	66.3	134			
Surr: 1,2-Dichloroethane-d4	8.8		10.00		88.2	70	130			
Surr: 4-Bromofluorobenzene	8.6		10.00		85.8	70	130			
Surr: Dibromofluoromethane	8.0		10.00		80.3	70	130			
Surr: Toluene-d8	9.6		10.00		96.1	70	130			

Sample ID 1309441-001amsd	SampType: MSD			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PW-3	Batch ID: R13338			RunNo: 13338						
Prep Date:	Analysis Date: 9/12/2013			SeqNo: 379467		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	16	1.0	20.00	0	82.3	67.9	137	4.48	20	
Toluene	19	1.0	20.00	0	93.8	77	127	2.80	20	
Chlorobenzene	17	1.0	20.00	0	86.1	70	130	5.72	20	
1,1-Dichloroethene	19	1.0	20.00	0	94.4	66.5	131	5.53	20	
Trichloroethene (TCE)	16	1.0	20.00	0	81.0	66.3	134	4.23	20	
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.8		10.00		88.0	70	130	0	0	
Surr: Dibromofluoromethane	8.4		10.00		83.6	70	130	0	0	
Surr: Toluene-d8	9.9		10.00		98.7	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	mb-9302	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	9302	RunNo:	13374					
Prep Date:	9/13/2013	Analysis Date:	9/13/2013	SeqNo:	380277	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	40								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	mb-9302	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	9302	RunNo:	13374					
Prep Date:	9/13/2013	Analysis Date:	9/13/2013	SeqNo:	380277	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: 2,4,6-Tribromophenol	140		200.0		68.8	41.5	117			
Surr: 2-Fluorobiphenyl	72		100.0		71.8	29.1	112			
Surr: 2-Fluorophenol	130		200.0		65.9	11.9	98.6			
Surr: 4-Terphenyl-d14	81		100.0		81.4	46	111			
Surr: Nitrobenzene-d5	77		100.0		77.4	34.9	112			
Surr: Phenol-d5	98		200.0		48.9	17.5	88.3			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	Ics-9302		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 9302		RunNo: 13374					
Prep Date:	9/13/2013		Analysis Date: 9/13/2013		SeqNo: 380279		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	72.2	53.3	92.5			
4-Chloro-3-methylphenol	170	10	200.0	0	84.1	55.9	93.9			
2-Chlorophenol	170	10	200.0	0	82.7	51.1	85.8			
1,4-Dichlorobenzene	70	10	100.0	0	70.0	41.5	86.7			
2,4-Dinitrotoluene	67	10	100.0	0	67.3	57.5	102			
N-Nitrosodi-n-propylamine	91	10	100.0	0	91.5	52.1	99.7			
4-Nitrophenol	82	10	200.0	0	41.0	27.2	53			
Pentachlorophenol	110	20	200.0	0	53.9	33.7	77.7			
Phenol	110	10	200.0	0	52.7	23.3	66.3			
Pyrene	98	10	100.0	0	98.0	57	88.7			S
1,2,4-Trichlorobenzene	75	10	100.0	0	75.4	46.7	87.8			
Surr: 2,4,6-Tribromophenol	150		200.0		76.8	41.5	117			
Surr: 2-Fluorobiphenyl	68		100.0		68.4	29.1	112			
Surr: 2-Fluorophenol	120		200.0		59.5	11.9	98.6			
Surr: 4-Terphenyl-d14	87		100.0		87.3	46	111			
Surr: Nitrobenzene-d5	80		100.0		79.6	34.9	112			
Surr: Phenol-d5	98		200.0		49.2	17.5	88.3			

Sample ID	1309397-003Dms	SampType: MS			TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	BatchQC	Batch ID: 9302			RunNo: 13374					
Prep Date:	9/13/2013	Analysis Date: 9/13/2013			SeqNo: 380320		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	81	20	100.0	0	80.5	70	130			
4-Chloro-3-methylphenol	160	20	200.0	0	78.3	70	130			
2-Chlorophenol	180	20	200.0	0	91.3	70	130			
1,4-Dichlorobenzene	86	20	100.0	0	85.6	70	130			
2,4-Dinitrotoluene	64	20	100.0	0	64.1	70	130			S
N-Nitrosodi-n-propylamine	100	20	100.0	0	102	70	130			
4-Nitrophenol	76	20	200.0	0	38.0	70	130			S
Pentachlorophenol	99	40	200.0	0	49.7	70	130			S
Phenol	110	20	200.0	0	53.6	70	130			S
Pyrene	98	20	100.0	0	98.0	70	130			
1,2,4-Trichlorobenzene	79	20	100.0	0	78.6	70	130			
Surr: 2,4,6-Tribromophenol	150		200.0		75.0	41.5	117			
Surr: 2-Fluorobiphenyl	89		100.0		89.0	29.1	112			
Surr: 2-Fluorophenol	140		200.0		71.7	11.9	98.6			
Surr: 4-Terphenyl-d14	94		100.0		94.4	46	111			
Surr: Nitrobenzene-d5	95		100.0		95.1	34.9	112			

Qualifiers:

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

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 P Sample pH greater than 2 for VOA and TOC only.
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309441

02-Oct-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual

Sample ID	1309397-003Dms	SampType:	MS	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	BatchQC	Batch ID:	9302	RunNo:	13374					
Prep Date:	9/13/2013	Analysis Date:	9/13/2013	SeqNo:	380320	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Phenol-d5	120		200.0		60.7	17.5	88.3			

Sample ID	1309397-003Dmsd	SampType:	MSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	BatchQC	Batch ID:	9302	RunNo:	13374					
Prep Date:	9/13/2013	Analysis Date:	9/13/2013	SeqNo:	380322	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	79	20	100.0	0	79.1	70	130	1.80	20	
4-Chloro-3-methylphenol	160	20	200.0	0	81.0	70	130	3.34	20	
2-Chlorophenol	180	20	200.0	0	87.6	70	130	4.05	20	
1,4-Dichlorobenzene	79	20	100.0	0	79.4	70	130	7.52	20	
2,4-Dinitrotoluene	72	20	100.0	0	71.6	70	130	11.0	20	
N-Nitrosodi-n-propylamine	100	20	100.0	0	101	70	130	1.30	20	
4-Nitrophenol	79	20	200.0	0	39.7	70	130	4.37	20	S
Pentachlorophenol	110	40	200.0	0	54.7	70	130	9.50	20	S
Phenol	100	20	200.0	0	51.8	70	130	3.49	20	S
Pyrene	98	20	100.0	0	98.0	70	130	0.0408	20	
1,2,4-Trichlorobenzene	79	20	100.0	0	79.4	70	130	1.11	20	
Surr: 2,4,6-Tribromophenol	160		200.0		78.8	41.5	117	0	0	
Surr: 2-Fluorobiphenyl	88		100.0		88.4	29.1	112	0	0	
Surr: 2-Fluorophenol	140		200.0		67.8	11.9	98.6	0	0	
Surr: 4-Terphenyl-d14	90		100.0		89.6	46	111	0	0	
Surr: Nitrobenzene-d5	91		100.0		90.6	34.9	112	0	0	
Surr: Phenol-d5	110		200.0		57.2	17.5	88.3	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit



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

December 06, 2013

Cheryl Johnson

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

RE: 2013 4th Quarter

OrderNo.: 1311556

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 11/13/2013 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 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2013 4th Quarter

Collection Date: 11/12/2013 10:00:00 AM

Lab ID: 1311556-001

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/14/2013 5:11:07 PM	10340
Surr: DNOP	120	70.1-140		%REC	1	11/14/2013 5:11:07 PM	10340
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/14/2013 2:46:37 PM	R14797
Surr: BFB	94.8	80.4-118		%REC	1	11/14/2013 2:46:37 PM	R14797
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/14/2013 2:46:37 PM	R14797
Benzene	ND	1.0		µg/L	1	11/14/2013 2:46:37 PM	R14797
Toluene	ND	1.0		µg/L	1	11/14/2013 2:46:37 PM	R14797
Ethylbenzene	ND	1.0		µg/L	1	11/14/2013 2:46:37 PM	R14797
Xylenes, Total	ND	2.0		µg/L	1	11/14/2013 2:46:37 PM	R14797
Surr: 4-Bromofluorobenzene	114	85-136		%REC	1	11/14/2013 2:46:37 PM	R14797
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.42	0.10		mg/L	1	11/14/2013 12:17:32 AM	R14794
Chloride	120	10		mg/L	20	11/14/2013 12:29:57 AM	R14794
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	11/14/2013 12:17:32 AM	R14794
Bromide	1.6	0.10		mg/L	1	11/14/2013 12:17:32 AM	R14794
Nitrogen, Nitrate (As N)	30	2.0	*	mg/L	20	11/14/2013 12:29:57 AM	R14794
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/14/2013 12:17:32 AM	R14794
Sulfate	210	10		mg/L	20	11/15/2013 5:06:59 AM	R14833
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.17	0.0020		mg/L	1	11/15/2013 5:34:55 PM	R14850
Cadmium	ND	0.0020		mg/L	1	11/15/2013 5:34:55 PM	R14850
Calcium	110	5.0		mg/L	5	11/15/2013 5:41:03 PM	R14850
Chromium	ND	0.0060		mg/L	1	11/15/2013 5:34:55 PM	R14850
Copper	ND	0.0060		mg/L	1	11/15/2013 5:34:55 PM	R14850
Iron	ND	0.020		mg/L	1	11/15/2013 5:34:55 PM	R14850
Magnesium	19	1.0		mg/L	1	11/15/2013 5:34:55 PM	R14850
Manganese	0.071	0.0020	*	mg/L	1	11/15/2013 5:34:55 PM	R14850
Potassium	ND	1.0		mg/L	1	11/15/2013 5:34:55 PM	R14850
Silver	ND	0.025		mg/L	5	11/15/2013 5:41:03 PM	R14850
Sodium	330	5.0		mg/L	5	11/18/2013 2:39:51 PM	R14880
Zinc	ND	0.010		mg/L	1	11/15/2013 5:34:55 PM	R14850
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.19	0.0020		mg/L	1	11/20/2013 3:41:07 PM	10405
Cadmium	ND	0.0020		mg/L	1	11/20/2013 3:41:07 PM	10405
Chromium	ND	0.0060		mg/L	1	11/20/2013 3:41:07 PM	10405

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2013 4th Quarter

Collection Date: 11/12/2013 10:00:00 AM

Lab ID: 1311556-001

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Copper	ND	0.0060		mg/L	1	11/20/2013 3:41:07 PM	10405
Iron	0.36	0.020	*	mg/L	1	11/20/2013 3:41:07 PM	10405
Manganese	0.17	0.0020	*	mg/L	1	11/20/2013 3:41:07 PM	10405
Silver	ND	0.0050		mg/L	1	11/20/2013 3:41:07 PM	10405
Zinc	0.011	0.010		mg/L	1	11/20/2013 3:41:07 PM	10405
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	11/19/2013 2:08:13 PM	R14903
Lead	ND	0.0050		mg/L	5	11/19/2013 2:24:25 PM	R14903
Selenium	0.011	0.0050		mg/L	5	11/19/2013 2:08:13 PM	R14903
Uranium	0.011	0.0050		mg/L	5	11/19/2013 2:24:25 PM	R14903
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0034	0.0010		mg/L	1	11/21/2013 1:15:21 PM	10405
Lead	ND	0.0010		mg/L	1	11/21/2013 1:15:21 PM	10405
Selenium	0.010	0.0010		mg/L	1	11/21/2013 1:15:21 PM	10405
Uranium	0.012	0.0010		mg/L	1	11/21/2013 1:15:21 PM	10405
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	11/18/2013 2:34:32 PM	10366
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Acenaphthylene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Aniline	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Anthracene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Azobenzene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Benz(a)anthracene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Benzo(a)pyrene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Benzo(b)fluoranthene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Benzo(k)fluoranthene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Benzoic acid	ND	40		µg/L	1	11/15/2013 1:03:14 PM	10357
Benzyl alcohol	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Butyl benzyl phthalate	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Carbazole	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2013 4th Quarter

Collection Date: 11/12/2013 10:00:00 AM

Lab ID: 1311556-001

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
4-Chloroaniline	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
2-Chloronaphthalene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
2-Chlorophenol	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Chrysene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Di-n-butyl phthalate	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Di-n-octyl phthalate	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Dibenzofuran	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
1,2-Dichlorobenzene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
1,3-Dichlorobenzene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
1,4-Dichlorobenzene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Diethyl phthalate	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Dimethyl phthalate	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
2,4-Dichlorophenol	ND	20		µg/L	1	11/15/2013 1:03:14 PM	10357
2,4-Dimethylphenol	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/15/2013 1:03:14 PM	10357
2,4-Dinitrophenol	ND	20		µg/L	1	11/15/2013 1:03:14 PM	10357
2,4-Dinitrotoluene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
2,6-Dinitrotoluene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Fluoranthene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Fluorene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Hexachlorobenzene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Hexachlorobutadiene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Hexachloroethane	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Isophorone	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
1-Methylnaphthalene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
2-Methylnaphthalene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
2-Methylphenol	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
3+4-Methylphenol	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
N-Nitrosodimethylamine	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Naphthalene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
2-Nitroaniline	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2013 4th Quarter

Collection Date: 11/12/2013 10:00:00 AM

Lab ID: 1311556-001

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
3-Nitroaniline	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
4-Nitroaniline	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Nitrobenzene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
2-Nitrophenol	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
4-Nitrophenol	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Pentachlorophenol	ND	20		µg/L	1	11/15/2013 1:03:14 PM	10357
Phenanthrene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Phenol	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Pyrene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Pyridine	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/15/2013 1:03:14 PM	10357
Surr: 2-Fluorophenol	58.1	22.7-98		%REC	1	11/15/2013 1:03:14 PM	10357
Surr: Phenol-d5	43.2	23.4-74.9		%REC	1	11/15/2013 1:03:14 PM	10357
Surr: 2,4,6-Tribromophenol	78.6	23.3-111		%REC	1	11/15/2013 1:03:14 PM	10357
Surr: Nitrobenzene-d5	79.0	36.8-111		%REC	1	11/15/2013 1:03:14 PM	10357
Surr: 2-Fluorobiphenyl	76.8	38.3-110		%REC	1	11/15/2013 1:03:14 PM	10357
Surr: 4-Terphenyl-d14	79.6	52.1-116		%REC	1	11/15/2013 1:03:14 PM	10357

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2013 4th Quarter

Collection Date: 11/12/2013 10:15:00 AM

Lab ID: 1311556-002

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	1.4	1.0		mg/L	1	11/14/2013 5:42:16 PM	10340
Surr: DNOP	110	70.1-140		%REC	1	11/14/2013 5:42:16 PM	10340
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.41	0.050		mg/L	1	11/14/2013 4:12:13 PM	R14797
Surr: BFB	133	80.4-118	S	%REC	1	11/14/2013 4:12:13 PM	R14797
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	250	25		µg/L	10	11/15/2013 1:23:11 PM	R14837
Benzene	10	1.0		µg/L	1	11/14/2013 4:12:13 PM	R14797
Toluene	ND	1.0		µg/L	1	11/14/2013 4:12:13 PM	R14797
Ethylbenzene	8.3	1.0		µg/L	1	11/14/2013 4:12:13 PM	R14797
Xylenes, Total	ND	2.0		µg/L	1	11/14/2013 4:12:13 PM	R14797
Surr: 4-Bromofluorobenzene	139	85-136	S	%REC	1	11/14/2013 4:12:13 PM	R14797
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.7	0.10		mg/L	1	11/14/2013 12:42:23 AM	R14794
Chloride	260	10		mg/L	20	11/14/2013 12:54:48 AM	R14794
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	11/14/2013 12:42:23 AM	R14794
Bromide	1.4	0.10		mg/L	1	11/14/2013 12:42:23 AM	R14794
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	11/14/2013 12:42:23 AM	R14794
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/14/2013 12:42:23 AM	R14794
Sulfate	23	0.50		mg/L	1	11/15/2013 5:19:24 AM	R14833
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	1.5	0.010		mg/L	5	11/15/2013 5:55:54 PM	R14850
Cadmium	ND	0.0020		mg/L	1	11/15/2013 5:54:07 PM	R14850
Calcium	79	1.0		mg/L	1	11/18/2013 2:54:25 PM	R14880
Chromium	ND	0.0060		mg/L	1	11/15/2013 5:54:07 PM	R14850
Copper	ND	0.0060		mg/L	1	11/15/2013 5:54:07 PM	R14850
Iron	1.8	0.10	*	mg/L	5	11/18/2013 2:56:07 PM	R14880
Magnesium	16	1.0		mg/L	1	11/18/2013 2:54:25 PM	R14880
Manganese	1.3	0.010	*	mg/L	5	11/15/2013 5:55:54 PM	R14850
Potassium	ND	1.0		mg/L	1	11/18/2013 2:54:25 PM	R14880
Silver	ND	0.0050		mg/L	1	11/18/2013 4:37:38 PM	R14880
Sodium	310	5.0		mg/L	5	11/18/2013 2:56:07 PM	R14880
Zinc	ND	0.010		mg/L	1	11/15/2013 5:54:07 PM	R14850
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	1.4	0.010		mg/L	5	11/20/2013 3:46:33 PM	10405
Cadmium	ND	0.0020		mg/L	1	11/20/2013 3:44:50 PM	10405
Chromium	ND	0.0060		mg/L	1	11/20/2013 3:44:50 PM	10405

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2013 4th Quarter

Collection Date: 11/12/2013 10:15:00 AM

Lab ID: 1311556-002

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Copper	0.0097	0.0060		mg/L	1	11/20/2013 3:44:50 PM	10405
Iron	3.2	0.10	*	mg/L	5	11/20/2013 3:46:33 PM	10405
Manganese	1.4	0.010	*	mg/L	5	11/20/2013 3:46:33 PM	10405
Silver	ND	0.0050		mg/L	1	11/20/2013 3:44:50 PM	10405
Zinc	0.018	0.010		mg/L	1	11/20/2013 3:44:50 PM	10405
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0077	0.0010		mg/L	1	11/19/2013 2:32:26 PM	R14903
Lead	ND	0.0010		mg/L	1	11/19/2013 2:32:26 PM	R14903
Selenium	0.0080	0.0010		mg/L	1	11/19/2013 2:32:26 PM	R14903
Uranium	ND	0.0010		mg/L	1	11/19/2013 2:32:26 PM	R14903
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0081	0.0010		mg/L	1	11/21/2013 1:17:45 PM	10405
Lead	0.0013	0.0010		mg/L	1	11/21/2013 1:17:45 PM	10405
Selenium	0.0077	0.0010		mg/L	1	11/21/2013 1:17:45 PM	10405
Uranium	ND	0.0010		mg/L	1	11/21/2013 1:17:45 PM	10405
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	11/18/2013 2:36:19 PM	10366
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Acenaphthylene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Aniline	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Anthracene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Azobenzene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Benz(a)anthracene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Benzo(a)pyrene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Benzo(b)fluoranthene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Benzo(k)fluoranthene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Benzoic acid	ND	40		µg/L	1	11/15/2013 1:32:07 PM	10357
Benzyl alcohol	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Butyl benzyl phthalate	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Carbazole	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2013 4th Quarter

Collection Date: 11/12/2013 10:15:00 AM

Lab ID: 1311556-002

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
4-Chloroaniline	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
2-Chloronaphthalene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
2-Chlorophenol	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Chrysene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Di-n-butyl phthalate	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Di-n-octyl phthalate	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Dibenzofuran	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
1,2-Dichlorobenzene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
1,3-Dichlorobenzene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
1,4-Dichlorobenzene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Diethyl phthalate	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Dimethyl phthalate	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
2,4-Dichlorophenol	ND	20		µg/L	1	11/15/2013 1:32:07 PM	10357
2,4-Dimethylphenol	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/15/2013 1:32:07 PM	10357
2,4-Dinitrophenol	ND	20		µg/L	1	11/15/2013 1:32:07 PM	10357
2,4-Dinitrotoluene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
2,6-Dinitrotoluene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Fluoranthene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Fluorene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Hexachlorobenzene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Hexachlorobutadiene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Hexachloroethane	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Isophorone	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
1-Methylnaphthalene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
2-Methylnaphthalene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
2-Methylphenol	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
3+4-Methylphenol	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
N-Nitrosodimethylamine	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Naphthalene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
2-Nitroaniline	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2013 4th Quarter

Collection Date: 11/12/2013 10:15:00 AM

Lab ID: 1311556-002

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
3-Nitroaniline	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
4-Nitroaniline	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Nitrobenzene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
2-Nitrophenol	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
4-Nitrophenol	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Pentachlorophenol	ND	20		µg/L	1	11/15/2013 1:32:07 PM	10357
Phenanthrene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Phenol	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Pyrene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Pyridine	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/15/2013 1:32:07 PM	10357
Surr: 2-Fluorophenol	48.9	22.7-98		%REC	1	11/15/2013 1:32:07 PM	10357
Surr: Phenol-d5	36.3	23.4-74.9		%REC	1	11/15/2013 1:32:07 PM	10357
Surr: 2,4,6-Tribromophenol	81.8	23.3-111		%REC	1	11/15/2013 1:32:07 PM	10357
Surr: Nitrobenzene-d5	75.6	36.8-111		%REC	1	11/15/2013 1:32:07 PM	10357
Surr: 2-Fluorobiphenyl	72.9	38.3-110		%REC	1	11/15/2013 1:32:07 PM	10357
Surr: 4-Terphenyl-d14	80.5	52.1-116		%REC	1	11/15/2013 1:32:07 PM	10357

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2013 4th Quarter

Collection Date: 11/12/2013 10:30:00 AM

Lab ID: 1311556-003

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/14/2013 6:13:27 PM	10340
Surr: DNOP	125	70.1-140		%REC	1	11/14/2013 6:13:27 PM	10340
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/14/2013 5:37:55 PM	R14797
Surr: BFB	99.4	80.4-118		%REC	1	11/14/2013 5:37:55 PM	R14797
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	6.5	2.5		µg/L	1	11/14/2013 5:37:55 PM	R14797
Benzene	2.4	1.0		µg/L	1	11/14/2013 5:37:55 PM	R14797
Toluene	ND	1.0		µg/L	1	11/14/2013 5:37:55 PM	R14797
Ethylbenzene	1.8	1.0		µg/L	1	11/14/2013 5:37:55 PM	R14797
Xylenes, Total	ND	2.0		µg/L	1	11/14/2013 5:37:55 PM	R14797
Surr: 4-Bromofluorobenzene	121	85-136		%REC	1	11/14/2013 5:37:55 PM	R14797
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.3	0.10		mg/L	1	11/14/2013 1:07:12 AM	R14794
Chloride	110	10		mg/L	20	11/14/2013 1:19:37 AM	R14794
Nitrogen, Nitrite (As N)	0.20	0.10		mg/L	1	11/14/2013 1:07:12 AM	R14794
Bromide	1.4	0.10		mg/L	1	11/14/2013 1:07:12 AM	R14794
Nitrogen, Nitrate (As N)	9.3	2.0		mg/L	20	11/14/2013 1:19:37 AM	R14794
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/14/2013 1:07:12 AM	R14794
Sulfate	54	10		mg/L	20	11/15/2013 5:31:49 AM	R14833
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.18	0.0020		mg/L	1	11/21/2013 12:17:35 PM	R14978
Cadmium	ND	0.0020		mg/L	1	11/21/2013 12:17:35 PM	R14978
Calcium	81	1.0		mg/L	1	11/22/2013 2:54:47 PM	R15016
Chromium	ND	0.0060		mg/L	1	11/21/2013 12:17:35 PM	R14978
Copper	ND	0.0060		mg/L	1	11/21/2013 12:17:35 PM	R14978
Iron	ND	0.020		mg/L	1	11/21/2013 12:17:35 PM	R14978
Magnesium	12	1.0		mg/L	1	11/21/2013 12:17:35 PM	R14978
Manganese	0.37	0.0020	*	mg/L	1	11/22/2013 2:54:47 PM	R15016
Potassium	1.9	1.0		mg/L	1	11/21/2013 12:17:35 PM	R14978
Silver	ND	0.0050		mg/L	1	11/21/2013 12:17:35 PM	R14978
Sodium	310	5.0		mg/L	5	11/21/2013 12:19:31 PM	R14978
Zinc	0.011	0.010		mg/L	1	11/22/2013 2:54:47 PM	R15016
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.16	0.0020		mg/L	1	11/20/2013 3:54:39 PM	10405
Cadmium	ND	0.0020		mg/L	1	11/20/2013 3:54:39 PM	10405
Chromium	ND	0.0060		mg/L	1	11/20/2013 3:54:39 PM	10405

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2013 4th Quarter

Collection Date: 11/12/2013 10:30:00 AM

Lab ID: 1311556-003

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Copper	ND	0.0060		mg/L	1	11/20/2013 3:54:39 PM	10405
Iron	0.22	0.020		mg/L	1	11/20/2013 3:54:39 PM	10405
Manganese	0.44	0.0020	*	mg/L	1	11/20/2013 3:54:39 PM	10405
Silver	ND	0.0050		mg/L	1	11/20/2013 3:54:39 PM	10405
Zinc	0.010	0.010		mg/L	1	11/20/2013 3:54:39 PM	10405
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0036	0.0010		mg/L	1	11/19/2013 2:35:05 PM	R14903
Lead	ND	0.0010		mg/L	1	11/19/2013 2:35:05 PM	R14903
Selenium	0.0091	0.0010		mg/L	1	11/19/2013 2:35:05 PM	R14903
Uranium	0.020	0.0010		mg/L	1	11/19/2013 2:35:05 PM	R14903
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0033	0.0010		mg/L	1	11/21/2013 1:20:08 PM	10405
Lead	ND	0.0010		mg/L	1	11/21/2013 1:20:08 PM	10405
Selenium	0.0082	0.0010		mg/L	1	11/21/2013 1:20:08 PM	10405
Uranium	0.021	0.0010		mg/L	1	11/21/2013 1:20:08 PM	10405
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	11/18/2013 2:38:04 PM	10366
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Acenaphthylene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Aniline	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Anthracene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Azobenzene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Benz(a)anthracene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Benzo(a)pyrene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Benzo(b)fluoranthene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Benzo(k)fluoranthene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Benzoic acid	ND	40		µg/L	1	11/15/2013 2:01:00 PM	10357
Benzyl alcohol	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Butyl benzyl phthalate	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Carbazole	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2013 4th Quarter

Collection Date: 11/12/2013 10:30:00 AM

Lab ID: 1311556-003

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
4-Chloroaniline	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
2-Chloronaphthalene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
2-Chlorophenol	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Chrysene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Di-n-butyl phthalate	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Di-n-octyl phthalate	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Dibenzofuran	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
1,2-Dichlorobenzene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
1,3-Dichlorobenzene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
1,4-Dichlorobenzene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Diethyl phthalate	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Dimethyl phthalate	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
2,4-Dichlorophenol	ND	20		µg/L	1	11/15/2013 2:01:00 PM	10357
2,4-Dimethylphenol	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/15/2013 2:01:00 PM	10357
2,4-Dinitrophenol	ND	20		µg/L	1	11/15/2013 2:01:00 PM	10357
2,4-Dinitrotoluene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
2,6-Dinitrotoluene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Fluoranthene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Fluorene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Hexachlorobenzene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Hexachlorobutadiene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Hexachloroethane	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Isophorone	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
1-Methylnaphthalene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
2-Methylnaphthalene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
2-Methylphenol	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
3+4-Methylphenol	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
N-Nitrosodimethylamine	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Naphthalene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
2-Nitroaniline	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2013 4th Quarter

Collection Date: 11/12/2013 10:30:00 AM

Lab ID: 1311556-003

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC	
3-Nitroaniline	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
4-Nitroaniline	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Nitrobenzene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
2-Nitrophenol	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
4-Nitrophenol	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Pentachlorophenol	ND	20		µg/L	1	11/15/2013 2:01:00 PM	10357
Phenanthrene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Phenol	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Pyrene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Pyridine	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/15/2013 2:01:00 PM	10357
Surr: 2-Fluorophenol	49.9	22.7-98		%REC	1	11/15/2013 2:01:00 PM	10357
Surr: Phenol-d5	35.9	23.4-74.9		%REC	1	11/15/2013 2:01:00 PM	10357
Surr: 2,4,6-Tribromophenol	77.1	23.3-111		%REC	1	11/15/2013 2:01:00 PM	10357
Surr: Nitrobenzene-d5	72.3	36.8-111		%REC	1	11/15/2013 2:01:00 PM	10357
Surr: 2-Fluorobiphenyl	69.8	38.3-110		%REC	1	11/15/2013 2:01:00 PM	10357
Surr: 4-Terphenyl-d14	66.3	52.1-116		%REC	1	11/15/2013 2:01:00 PM	10357

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2013 4th Quarter

Collection Date: 11/12/2013 10:45:00 AM

Lab ID: 1311556-004

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/14/2013 6:44:38 PM	10340
Surr: DNOP	125	70.1-140		%REC	1	11/14/2013 6:44:38 PM	10340
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/14/2013 6:06:27 PM	R14797
Surr: BFB	91.5	80.4-118		%REC	1	11/14/2013 6:06:27 PM	R14797
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/14/2013 6:06:27 PM	R14797
Benzene	ND	1.0		µg/L	1	11/14/2013 6:06:27 PM	R14797
Toluene	ND	1.0		µg/L	1	11/14/2013 6:06:27 PM	R14797
Ethylbenzene	ND	1.0		µg/L	1	11/14/2013 6:06:27 PM	R14797
Xylenes, Total	ND	2.0		µg/L	1	11/14/2013 6:06:27 PM	R14797
Surr: 4-Bromofluorobenzene	111	85-136		%REC	1	11/14/2013 6:06:27 PM	R14797
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.36	0.10		mg/L	1	11/14/2013 1:32:02 AM	R14794
Chloride	990	50		mg/L	100	11/15/2013 6:17:05 PM	R14854
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/14/2013 1:44:27 AM	R14794
Bromide	5.0	0.10		mg/L	1	11/14/2013 1:32:02 AM	R14794
Nitrogen, Nitrate (As N)	20	2.0	*	mg/L	20	11/14/2013 1:44:27 AM	R14794
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/14/2013 1:32:02 AM	R14794
Sulfate	380	25		mg/L	50	11/15/2013 5:44:14 AM	R14833
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.055	0.0020		mg/L	1	11/15/2013 5:57:43 PM	R14850
Cadmium	ND	0.0020		mg/L	1	11/15/2013 5:57:43 PM	R14850
Calcium	37	1.0		mg/L	1	11/18/2013 2:57:57 PM	R14880
Chromium	ND	0.0060		mg/L	1	11/15/2013 5:57:43 PM	R14850
Copper	ND	0.0060		mg/L	1	11/15/2013 5:57:43 PM	R14850
Iron	0.15	0.020		mg/L	1	11/18/2013 2:57:57 PM	R14880
Magnesium	5.8	1.0		mg/L	1	11/18/2013 2:57:57 PM	R14880
Manganese	0.0047	0.0020		mg/L	1	11/15/2013 5:57:43 PM	R14850
Potassium	4.5	1.0		mg/L	1	11/18/2013 2:57:57 PM	R14880
Silver	ND	0.0050		mg/L	1	11/18/2013 4:39:19 PM	R14880
Sodium	820	10		mg/L	10	11/18/2013 2:59:57 PM	R14880
Zinc	0.024	0.010		mg/L	1	11/15/2013 5:57:43 PM	R14850
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.69	0.0020		mg/L	1	11/20/2013 3:58:18 PM	10405
Cadmium	ND	0.0020		mg/L	1	11/20/2013 3:58:18 PM	10405
Chromium	0.029	0.0060		mg/L	1	11/20/2013 3:58:18 PM	10405

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2013 4th Quarter

Collection Date: 11/12/2013 10:45:00 AM

Lab ID: 1311556-004

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Copper	0.021	0.0060		mg/L	1	11/20/2013 3:58:18 PM	10405
Iron	13	1.0	*	mg/L	50	11/21/2013 11:36:52 AM	10405
Manganese	0.70	0.0020	*	mg/L	1	11/20/2013 3:58:18 PM	10405
Silver	ND	0.0050		mg/L	1	11/20/2013 3:58:18 PM	10405
Zinc	0.24	0.010		mg/L	1	11/20/2013 3:58:18 PM	10405
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0076	0.0010		mg/L	1	11/19/2013 2:37:45 PM	R14903
Lead	ND	0.0010		mg/L	1	11/19/2013 2:37:45 PM	R14903
Selenium	0.029	0.0010		mg/L	1	11/19/2013 2:37:45 PM	R14903
Uranium	0.036	0.0010	*	mg/L	1	11/19/2013 2:37:45 PM	R14903
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0097	0.0010		mg/L	1	11/21/2013 1:22:32 PM	10405
Lead	0.019	0.0010	*	mg/L	1	11/21/2013 1:22:32 PM	10405
Selenium	0.030	0.0010		mg/L	1	11/21/2013 1:22:32 PM	10405
Uranium	0.038	0.0010	*	mg/L	1	11/21/2013 1:22:32 PM	10405
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	11/18/2013 2:39:51 PM	10366
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Acenaphthylene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Aniline	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Anthracene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Azobenzene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Benz(a)anthracene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Benzo(a)pyrene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Benzo(b)fluoranthene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Benzo(k)fluoranthene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Benzoic acid	ND	40		µg/L	1	11/15/2013 3:27:56 PM	10357
Benzyl alcohol	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Butyl benzyl phthalate	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Carbazole	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2013 4th Quarter

Collection Date: 11/12/2013 10:45:00 AM

Lab ID: 1311556-004

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
4-Chloroaniline	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
2-Chloronaphthalene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
2-Chlorophenol	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Chrysene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Di-n-butyl phthalate	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Di-n-octyl phthalate	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Dibenzofuran	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
1,2-Dichlorobenzene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
1,3-Dichlorobenzene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
1,4-Dichlorobenzene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Diethyl phthalate	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Dimethyl phthalate	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
2,4-Dichlorophenol	ND	20		µg/L	1	11/15/2013 3:27:56 PM	10357
2,4-Dimethylphenol	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/15/2013 3:27:56 PM	10357
2,4-Dinitrophenol	ND	20		µg/L	1	11/15/2013 3:27:56 PM	10357
2,4-Dinitrotoluene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
2,6-Dinitrotoluene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Fluoranthene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Fluorene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Hexachlorobenzene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Hexachlorobutadiene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Hexachloroethane	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Isophorone	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
1-Methylnaphthalene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
2-Methylnaphthalene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
2-Methylphenol	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
3+4-Methylphenol	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
N-Nitrosodimethylamine	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Naphthalene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
2-Nitroaniline	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2013 4th Quarter

Collection Date: 11/12/2013 10:45:00 AM

Lab ID: 1311556-004

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
3-Nitroaniline	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
4-Nitroaniline	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Nitrobenzene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
2-Nitrophenol	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
4-Nitrophenol	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Pentachlorophenol	ND	20		µg/L	1	11/15/2013 3:27:56 PM	10357
Phenanthrene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Phenol	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Pyrene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Pyridine	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/15/2013 3:27:56 PM	10357
Surr: 2-Fluorophenol	42.4	22.7-98		%REC	1	11/15/2013 3:27:56 PM	10357
Surr: Phenol-d5	33.1	23.4-74.9		%REC	1	11/15/2013 3:27:56 PM	10357
Surr: 2,4,6-Tribromophenol	75.6	23.3-111		%REC	1	11/15/2013 3:27:56 PM	10357
Surr: Nitrobenzene-d5	78.3	36.8-111		%REC	1	11/15/2013 3:27:56 PM	10357
Surr: 2-Fluorobiphenyl	71.5	38.3-110		%REC	1	11/15/2013 3:27:56 PM	10357
Surr: 4-Terphenyl-d14	66.6	52.1-116		%REC	1	11/15/2013 3:27:56 PM	10357

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: WEST LDU

Project: 2013 4th Quarter

Collection Date: 11/12/2013 12:15:00 PM

Lab ID: 1311556-005

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	17	10		mg/L	10	11/14/2013 4:09:00 PM	10340
Surr: DNOP	0	70.1-140	S	%REC	10	11/14/2013 4:09:00 PM	10340
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	30	5.0		mg/L	100	11/14/2013 6:34:59 PM	R14797
Surr: BFB	99.2	80.4-118		%REC	100	11/14/2013 6:34:59 PM	R14797
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	11/14/2013 6:34:59 PM	R14797
Benzene	2800	100		µg/L	100	11/14/2013 6:34:59 PM	R14797
Toluene	3700	100		µg/L	100	11/14/2013 6:34:59 PM	R14797
Ethylbenzene	310	100		µg/L	100	11/14/2013 6:34:59 PM	R14797
Xylenes, Total	6000	200		µg/L	100	11/14/2013 6:34:59 PM	R14797
Surr: 4-Bromofluorobenzene	120	85-136		%REC	100	11/14/2013 6:34:59 PM	R14797
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.17	0.0020		mg/L	1	11/15/2013 6:01:37 PM	R14850
Cadmium	ND	0.0020		mg/L	1	11/15/2013 6:01:37 PM	R14850
Chromium	0.14	0.0060	*	mg/L	1	11/15/2013 6:01:37 PM	R14850
Copper	ND	0.0060		mg/L	1	11/15/2013 6:01:37 PM	R14850
Iron	0.093	0.020		mg/L	1	11/18/2013 3:01:44 PM	R14880
Manganese	1.3	0.010	*	mg/L	5	11/15/2013 6:03:50 PM	R14850
Silver	ND	0.0050		mg/L	1	11/26/2013 5:10:31 PM	R15106
Zinc	0.023	0.010		mg/L	1	11/15/2013 6:01:37 PM	R14850
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.18	0.0020		mg/L	1	11/20/2013 4:01:50 PM	10405
Cadmium	ND	0.0020		mg/L	1	11/20/2013 4:01:50 PM	10405
Chromium	0.16	0.0060	*	mg/L	1	11/20/2013 4:01:50 PM	10405
Copper	ND	0.0060		mg/L	1	11/20/2013 4:01:50 PM	10405
Iron	0.34	0.020	*	mg/L	1	11/20/2013 4:01:50 PM	10405
Manganese	1.4	0.010	*	mg/L	5	11/20/2013 4:04:02 PM	10405
Silver	ND	0.025		mg/L	5	11/20/2013 4:04:02 PM	10405
Zinc	0.032	0.010		mg/L	1	11/20/2013 4:01:50 PM	10405
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.010	0.0050	*	mg/L	5	11/19/2013 2:40:24 PM	R14903
Lead	ND	0.0050		mg/L	5	11/19/2013 2:40:24 PM	R14903
Selenium	0.044	0.0050		mg/L	5	11/19/2013 2:40:24 PM	R14903
Uranium	ND	0.0050		mg/L	5	11/19/2013 2:40:24 PM	R14903
200.8 ICPMS METALS:TOTAL							Analyst: DBD

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: WEST LDU

Project: 2013 4th Quarter

Collection Date: 11/12/2013 12:15:00 PM

Lab ID: 1311556-005

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0099	0.0050		mg/L	5	11/21/2013 2:29:36 PM	10405
Lead	ND	0.0050		mg/L	5	11/21/2013 2:29:36 PM	10405
Selenium	0.014	0.0050		mg/L	5	11/21/2013 2:29:36 PM	10405
Uranium	ND	0.0050		mg/L	5	11/21/2013 2:29:36 PM	10405
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	11/18/2013 2:41:39 PM	10366

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EAST LDU

Project: 2013 4th Quarter

Collection Date: 11/12/2013 12:30:00 PM

Lab ID: 1311556-006

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	410	10		mg/L	10	11/14/2013 4:39:56 PM	10340
Surr: DNOP	0	70.1-140	S	%REC	10	11/14/2013 4:39:56 PM	10340
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	32	10		mg/L	200	11/14/2013 9:54:41 PM	R14797
Surr: BFB	111	80.4-118		%REC	200	11/14/2013 9:54:41 PM	R14797
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	500		µg/L	200	11/14/2013 9:54:41 PM	R14797
Benzene	190	100		µg/L	200	11/14/2013 9:54:41 PM	R14797
Toluene	170	100		µg/L	200	11/14/2013 9:54:41 PM	R14797
Ethylbenzene	130	100		µg/L	200	11/14/2013 9:54:41 PM	R14797
Xylenes, Total	5600	400		µg/L	200	11/14/2013 9:54:41 PM	R14797
Surr: 4-Bromofluorobenzene	117	85-136		%REC	200	11/14/2013 9:54:41 PM	R14797
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.34	0.0020		mg/L	1	11/21/2013 12:23:10 PM	R14978
Cadmium	ND	0.0020		mg/L	1	11/21/2013 12:23:10 PM	R14978
Chromium	0.44	0.0060	*	mg/L	1	11/21/2013 12:23:10 PM	R14978
Copper	ND	0.0060		mg/L	1	11/21/2013 12:23:10 PM	R14978
Iron	0.080	0.020		mg/L	1	11/21/2013 12:23:10 PM	R14978
Manganese	0.25	0.0020	*	mg/L	1	11/22/2013 2:56:41 PM	R15016
Silver	ND	0.0050		mg/L	1	11/21/2013 12:23:10 PM	R14978
Zinc	0.019	0.010		mg/L	1	11/22/2013 2:56:41 PM	R15016
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.35	0.010		mg/L	1	11/20/2013 4:05:57 PM	10405
Cadmium	ND	0.010		mg/L	1	11/20/2013 4:05:57 PM	10405
Chromium	0.44	0.030	*	mg/L	1	11/20/2013 4:05:57 PM	10405
Copper	ND	0.030		mg/L	1	11/20/2013 4:05:57 PM	10405
Iron	0.32	0.10	*	mg/L	1	11/20/2013 4:05:57 PM	10405
Manganese	0.26	0.010	*	mg/L	1	11/20/2013 4:05:57 PM	10405
Silver	ND	0.025		mg/L	1	11/20/2013 4:05:57 PM	10405
Zinc	ND	0.050		mg/L	1	11/20/2013 4:05:57 PM	10405
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0097	0.0050		mg/L	5	11/19/2013 2:51:05 PM	R14903
Lead	ND	0.0050		mg/L	5	11/19/2013 2:51:05 PM	R14903
Selenium	0.0078	0.0050		mg/L	5	11/19/2013 2:51:05 PM	R14903
Uranium	ND	0.0050		mg/L	5	11/19/2013 2:51:05 PM	R14903
200.8 ICPMS METALS:TOTAL							Analyst: DBD

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EAST LDU

Project: 2013 4th Quarter

Collection Date: 11/12/2013 12:30:00 PM

Lab ID: 1311556-006

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.012	0.0050	*	mg/L	1	11/21/2013 1:32:09 PM	10405
Lead	ND	0.0050		mg/L	1	11/21/2013 1:32:09 PM	10405
Selenium	0.0063	0.0050		mg/L	1	11/21/2013 1:32:09 PM	10405
Uranium	ND	0.0050		mg/L	1	11/21/2013 1:32:09 PM	10405
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	11/18/2013 2:43:30 PM	10366

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2013 4th Quarter

Collection Date: 11/12/2013 8:00:00 AM

Lab ID: 1311556-007

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/14/2013 10:51:48 PM	R14797
Benzene	ND	1.0		µg/L	1	11/14/2013 10:51:48 PM	R14797
Toluene	ND	1.0		µg/L	1	11/14/2013 10:51:48 PM	R14797
Ethylbenzene	ND	1.0		µg/L	1	11/14/2013 10:51:48 PM	R14797
Xylenes, Total	ND	2.0		µg/L	1	11/14/2013 10:51:48 PM	R14797
Surr: 4-Bromofluorobenzene	111	85-136		%REC	1	11/14/2013 10:51:48 PM	R14797

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311556

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 4th Quarter

Collection Date:

Lab ID: 1311556-008

Matrix: TRIP BLANK

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/14/2013 11:20:23 PM	R14797
Benzene	ND	1.0		µg/L	1	11/14/2013 11:20:23 PM	R14797
Toluene	ND	1.0		µg/L	1	11/14/2013 11:20:23 PM	R14797
Ethylbenzene	ND	1.0		µg/L	1	11/14/2013 11:20:23 PM	R14797
Xylenes, Total	ND	2.0		µg/L	1	11/14/2013 11:20:23 PM	R14797
Surr: 4-Bromofluorobenzene	111	85-136		%REC	1	11/14/2013 11:20:23 PM	R14797

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R14850	RunNo:	14850					
Prep Date:		Analysis Date:	11/15/2013	SeqNo:	427925	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R14850	RunNo:	14850					
Prep Date:		Analysis Date:	11/15/2013	SeqNo:	427926	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.48	0.0020	0.5000	0	95.8	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.4	85	115			
Calcium	48	1.0	50.00	0	96.6	85	115			
Chromium	0.50	0.0060	0.5000	0	101	85	115			
Copper	0.48	0.0060	0.5000	0	96.6	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Magnesium	50	1.0	50.00	0	99.7	85	115			
Manganese	0.47	0.0020	0.5000	0	94.6	85	115			
Potassium	48	1.0	50.00	0	95.4	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Sample ID	1311556-001DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	NAPIS-1	Batch ID:	R14850	RunNo:	14850					
Prep Date:		Analysis Date:	11/15/2013	SeqNo:	427940	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.64	0.0020	0.5000	0.1703	94.4	70	130			
Cadmium	0.51	0.0020	0.5000	0	102	70	130			
Chromium	0.50	0.0060	0.5000	0.001110	99.3	70	130			
Copper	0.51	0.0060	0.5000	0	103	70	130			
Iron	0.49	0.020	0.5000	0.009390	95.7	70	130			
Magnesium	68	1.0	50.00	19.43	96.8	70	130			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID	1311556-001DMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	NAPIS-1		Batch ID: R14850		RunNo: 14850					
Prep Date:			Analysis Date: 11/15/2013		SeqNo: 427940		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	0.56	0.0020	0.5000	0.07122	97.7	70	130			
Potassium	50	1.0	50.00	0.9577	98.8	70	130			
Zinc	0.51	0.010	0.5000	0.004200	102	70	130			

Sample ID	1311556-001DMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	NAPIS-1		Batch ID: R14850		RunNo: 14850					
Prep Date:			Analysis Date: 11/15/2013		SeqNo: 427941		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1703	92.7	70	130	1.38	20	
Cadmium	0.50	0.0020	0.5000	0	101	70	130	0.914	20	
Chromium	0.50	0.0060	0.5000	0.001110	100	70	130	1.17	20	
Copper	0.51	0.0060	0.5000	0	101	70	130	1.20	20	
Iron	0.50	0.020	0.5000	0.009390	97.4	70	130	1.72	20	
Magnesium	69	1.0	50.00	19.43	98.6	70	130	1.28	20	
Manganese	0.55	0.0020	0.5000	0.07122	96.4	70	130	1.17	20	
Potassium	51	1.0	50.00	0.9577	101	70	130	1.91	20	
Zinc	0.52	0.010	0.5000	0.004200	103	70	130	0.861	20	

Sample ID	1311556-001DMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	NAPIS-1		Batch ID: R14850		RunNo: 14850					
Prep Date:			Analysis Date: 11/15/2013		SeqNo: 427943		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	340	5.0	250.0	109.0	94.1	70	130			
Silver	0.44	0.025	0.5000	0	87.3	70	130			

Sample ID	1311556-001DMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	NAPIS-1		Batch ID: R14850		RunNo: 14850					
Prep Date:			Analysis Date: 11/15/2013		SeqNo: 427944		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	109.0	95.7	70	130	1.18	20	
Silver	0.46	0.025	0.5000	0	91.3	70	130	4.45	20	

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R14880			RunNo: 14880					
Prep Date:		Analysis Date: 11/18/2013			SeqNo: 429000		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R14880	RunNo:	14880					
Prep Date:		Analysis Date:	11/18/2013	SeqNo:	429000	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Iron	ND	0.020								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R14880	RunNo:	14880					
Prep Date:		Analysis Date:	11/18/2013	SeqNo:	429001	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	45	1.0	50.00	0	89.8	85	115			
Iron	0.52	0.020	0.5000	0	105	85	115			
Magnesium	45	1.0	50.00	0	90.2	85	115			
Potassium	43	1.0	50.00	0	86.1	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			
Sodium	43	1.0	50.00	0	86.7	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R14978	RunNo:	14978					
Prep Date:		Analysis Date:	11/21/2013	SeqNo:	432290	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								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R14978	RunNo:	14978					
Prep Date:		Analysis Date:	11/21/2013	SeqNo:	432291	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R14978		RunNo: 14978					
Prep Date:			Analysis Date: 11/21/2013		SeqNo: 432291		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Chromium	0.50	0.0060	0.5000	0	99.6	85	115			
Copper	0.49	0.0060	0.5000	0	97.5	85	115			
Iron	0.53	0.020	0.5000	0	107	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Potassium	49	1.0	50.00	0	98.0	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			
Sodium	50	1.0	50.00	0	99.2	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R14978			RunNo: 14978					
Prep Date:		Analysis Date: 11/21/2013			SeqNo: 432292		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								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R14978		RunNo: 14978					
Prep Date:			Analysis Date: 11/21/2013		SeqNo: 432293		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	102	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.51	0.0060	0.5000	0	102	85	115			
Copper	0.49	0.0060	0.5000	0	98.1	85	115			
Iron	0.54	0.020	0.5000	0	107	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Potassium	49	1.0	50.00	0	97.7	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Sodium	50	1.0	50.00	0	99.0	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R15016	RunNo:	15016					
Prep Date:		Analysis Date:	11/22/2013	SeqNo:	433546	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R15016	RunNo:	15016					
Prep Date:		Analysis Date:	11/22/2013	SeqNo:	433547	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	48	1.0	50.00	0	95.2	85	115			
Manganese	0.47	0.0020	0.5000	0	93.0	85	115			
Zinc	0.48	0.010	0.5000	0	96.6	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R15106	RunNo:	15106					
Prep Date:		Analysis Date:	11/26/2013	SeqNo:	435777	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R15106	RunNo:	15106					
Prep Date:		Analysis Date:	11/26/2013	SeqNo:	435779	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	103	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID	MB-10405		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 10405		RunNo: 14938					
Prep Date:	11/19/2013		Analysis Date: 11/20/2013		SeqNo: 430850		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-10405		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 10405		RunNo: 14938					
Prep Date:	11/19/2013		Analysis Date: 11/20/2013		SeqNo: 430851		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	101	85	115			
Copper	0.50	0.0060	0.5000	0	99.7	85	115			
Iron	0.53	0.020	0.5000	0	106	85	115			
Manganese	0.52	0.0020	0.5000	0	103	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.52	0.010	0.5000	0	104	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID	1311556-006CMS		SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	EAST LDU		Batch ID:	R14903		RunNo:	14903			
Prep Date:			Analysis Date:	11/19/2013		SeqNo:	429834		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.009705	97.7	70	130			
Lead	0.13	0.0050	0.1250	0.0006910	100	70	130			
Selenium	0.11	0.0050	0.1250	0.007786	81.8	70	130			
Uranium	0.14	0.0050	0.1250	0.0005691	108	70	130			

Sample ID	LCS		SampType:	LCS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	LCSW		Batch ID:	R14903		RunNo:	14903			
Prep Date:			Analysis Date:	11/19/2013		SeqNo:	429856		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	98.2	85	115			
Lead	0.025	0.0010	0.02500	0	98.8	85	115			
Selenium	0.024	0.0010	0.02500	0	95.0	85	115			
Uranium	0.025	0.0010	0.02500	0	101	85	115			

Sample ID	LCS		SampType:	LCS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	LCSW		Batch ID:	R14903		RunNo:	14903			
Prep Date:			Analysis Date:	11/19/2013		SeqNo:	429857		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.5	85	115			
Lead	0.024	0.0010	0.02500	0	95.5	85	115			
Selenium	0.024	0.0010	0.02500	0	94.2	85	115			
Uranium	0.024	0.0010	0.02500	0	97.4	85	115			

Sample ID	MB		SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	PBW		Batch ID:	R14903		RunNo:	14903			
Prep Date:			Analysis Date:	11/19/2013		SeqNo:	429858		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB		SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	PBW		Batch ID:	R14903		RunNo:	14903			
Prep Date:			Analysis Date:	11/19/2013		SeqNo:	429859		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup**Project:** 2013 4th Quarter

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R14903	RunNo:	14903					
Prep Date:		Analysis Date:	11/19/2013	SeqNo:	429859	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID	LLLCS-10405		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 10405		RunNo: 14975					
Prep Date:	11/19/2013		Analysis Date: 11/21/2013		SeqNo: 432219		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	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	95.9	85	115			
Uranium	0.026	0.0010	0.02500	0	102	85	115			

Sample ID	MB-10405		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 10405		RunNo: 14975					
Prep Date:	11/19/2013		Analysis Date: 11/21/2013		SeqNo: 432222		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID	MB-10366		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 10366		RunNo: 14872					
Prep Date:	11/17/2013		Analysis Date: 11/18/2013		SeqNo: 428683		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-10366			SampType:	LCS		TestCode:	EPA Method 245.1: Mercury			
Client ID:	LCSW			Batch ID:	10366		RunNo:	14872			
Prep Date:	11/17/2013			Analysis Date:	11/18/2013		SeqNo:	428684		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0050	0.00020	0.005000	0	100	80	120				

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R14794		RunNo: 14794							
Prep Date:	Analysis Date: 11/13/2013		SeqNo: 426160		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R14794		RunNo: 14794							
Prep Date:	Analysis Date: 11/13/2013		SeqNo: 426161		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	93.0	90	110			
Chloride	4.9	0.50	5.000	0	97.4	90	110			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	95.8	90	110			
Bromide	2.5	0.10	2.500	0	99.9	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P)	4.7	0.50	5.000	0	93.4	90	110			

Sample ID A6	SampType: CCV_6		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R14794		RunNo: 14794							
Prep Date:	Analysis Date: 11/13/2013		SeqNo: 426171		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.5	0.10	2.400	0	103	90	110			
Chloride	12	0.50	12.00	0	102	90	110			
Nitrogen, Nitrite (As N)	4.8	0.10	4.800	0	100	90	110			
Bromide	12	0.10	12.00	0	102	90	110			
Nitrogen, Nitrate (As N)	7.7	0.10	7.200	0	107	90	110			
Phosphorus, Orthophosphate (As P)	12	0.50	12.00	0	101	90	110			

Sample ID A4	SampType: CCV_4		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R14794		RunNo: 14794							
Prep Date:	Analysis Date: 11/13/2013		SeqNo: 426183		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.99	0.10	1.000	0	98.6	90	110			
Chloride	4.7	0.50	5.000	0	94.0	90	110			
Nitrogen, Nitrite (As N)	1.9	0.10	2.000	0	94.7	90	110			
Bromide	4.9	0.10	5.000	0	97.5	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID A4	SampType: CCV_4		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R14794		RunNo: 14794							
Prep Date:	Analysis Date: 11/13/2013		SeqNo: 426183		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.9	0.10	3.000	0	97.5	90	110			
Phosphorus, Orthophosphate (As P)	4.7	0.50	5.000	0	93.1	90	110			

Sample ID A6	SampType: CCV_6		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R14794		RunNo: 14794							
Prep Date:	Analysis Date: 11/13/2013		SeqNo: 426195		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.5	0.10	2.400	0	103	90	110			
Chloride	12	0.50	12.00	0	101	90	110			
Nitrogen, Nitrite (As N)	4.8	0.10	4.800	0	99.3	90	110			
Bromide	12	0.10	12.00	0	101	90	110			
Nitrogen, Nitrate (As N)	7.6	0.10	7.200	0	106	90	110			
Phosphorus, Orthophosphate (As P)	12	0.50	12.00	0	100	90	110			

Sample ID A4	SampType: CCV_4		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R14794		RunNo: 14794							
Prep Date:	Analysis Date: 11/14/2013		SeqNo: 426207		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.97	0.10	1.000	0	97.1	90	110			
Chloride	4.8	0.50	5.000	0	97.0	90	110			
Nitrogen, Nitrite (As N)	1.9	0.10	2.000	0	93.9	90	110			
Bromide	4.8	0.10	5.000	0	96.4	90	110			
Nitrogen, Nitrate (As N)	2.9	0.10	3.000	0	96.6	90	110			
Phosphorus, Orthophosphate (As P)	4.6	0.50	5.000	0	92.0	90	110			

Sample ID A6	SampType: CCV_6		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R14794		RunNo: 14794							
Prep Date:	Analysis Date: 11/14/2013		SeqNo: 426215		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.5	0.10	2.400	0	103	90	110			
Chloride	12	0.50	12.00	0	102	90	110			
Nitrogen, Nitrite (As N)	4.7	0.10	4.800	0	98.9	90	110			
Bromide	12	0.10	12.00	0	100	90	110			
Nitrogen, Nitrate (As N)	7.6	0.10	7.200	0	106	90	110			
Phosphorus, Orthophosphate (As P)	12	0.50	12.00	0	100	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R14833			RunNo: 14833						
Prep Date:	Analysis Date: 11/14/2013			SeqNo: 427352		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R14833			RunNo: 14833						
Prep Date:	Analysis Date: 11/14/2013			SeqNo: 427353		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.9	0.50	10.00	0	98.7	90	110			

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14833			RunNo: 14833						
Prep Date:	Analysis Date: 11/14/2013			SeqNo: 427362		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	12	0.50	12.50	0	93.9	90	110			

Sample ID A5	SampType: CCV_5			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14833			RunNo: 14833						
Prep Date:	Analysis Date: 11/14/2013			SeqNo: 427374		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	19	0.50	20.00	0	96.7	90	110			

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14833			RunNo: 14833						
Prep Date:	Analysis Date: 11/14/2013			SeqNo: 427386		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	30	0.50	30.00	0	101	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R14833			RunNo: 14833						
Prep Date:	Analysis Date: 11/14/2013			SeqNo: 427396		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R14833			RunNo: 14833						
Prep Date:	Analysis Date: 11/14/2013			SeqNo: 427397		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.7	0.50	10.00	0	97.1	90	110			

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14833			RunNo: 14833						
Prep Date:	Analysis Date: 11/14/2013			SeqNo: 427398		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	12	0.50	12.50	0	93.9	90	110			

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14833			RunNo: 14833						
Prep Date:	Analysis Date: 11/15/2013			SeqNo: 427410		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	30	0.50	30.00	0	102	90	110			

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14833			RunNo: 14833						
Prep Date:	Analysis Date: 11/15/2013			SeqNo: 427422		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	12	0.50	12.50	0	93.5	90	110			

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14833			RunNo: 14833						
Prep Date:	Analysis Date: 11/15/2013			SeqNo: 427429		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	30	0.50	30.00	0	101	90	110			

Sample ID A5	SampType: CCV_5			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14854			RunNo: 14854						
Prep Date:	Analysis Date: 11/15/2013			SeqNo: 428171		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	7.9	0.50	8.000	0	98.8	90	110			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R14854	RunNo:	14854					
Prep Date:		Analysis Date:	11/15/2013	SeqNo:	428173	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R14854	RunNo:	14854					
Prep Date:		Analysis Date:	11/15/2013	SeqNo:	428174	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.1	0.50	5.000	0	101	90	110			

Sample ID	A6	SampType:	CCV_6	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R14854	RunNo:	14854					
Prep Date:		Analysis Date:	11/15/2013	SeqNo:	428183	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	12	0.50	12.00	0	104	90	110			

Sample ID	A4	SampType:	CCV_4	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R14854	RunNo:	14854					
Prep Date:		Analysis Date:	11/15/2013	SeqNo:	428195	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	95.2	90	110			

Sample ID	A5	SampType:	CCV_5	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R14854	RunNo:	14854					
Prep Date:		Analysis Date:	11/15/2013	SeqNo:	428207	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	7.9	0.50	8.000	0	99.1	90	110			

Sample ID	A6	SampType:	CCV_6	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R14854	RunNo:	14854					
Prep Date:		Analysis Date:	11/15/2013	SeqNo:	428219	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	12	0.50	12.00	0	103	90	110			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R14854			RunNo: 14854						
Prep Date:	Analysis Date: 11/15/2013			SeqNo: 428227			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R14854			RunNo: 14854						
Prep Date:	Analysis Date: 11/15/2013			SeqNo: 428228			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.3	0.50	5.000	0	105	90	110			

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14854			RunNo: 14854						
Prep Date:	Analysis Date: 11/15/2013			SeqNo: 428231			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.9	90	110			

Sample ID A5	SampType: CCV_5			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14854			RunNo: 14854						
Prep Date:	Analysis Date: 11/16/2013			SeqNo: 428243			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	7.9	0.50	8.000	0	98.4	90	110			

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14854			RunNo: 14854						
Prep Date:	Analysis Date: 11/16/2013			SeqNo: 428255			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	12	0.50	12.00	0	102	90	110			

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14854			RunNo: 14854						
Prep Date:	Analysis Date: 11/16/2013			SeqNo: 428263			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.8	90	110			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID	MB-10340		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 10340		RunNo: 14789					
Prep Date:	11/14/2013		Analysis Date: 11/14/2013		SeqNo: 426465		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Surr: DNOP	1.0		1.000		100	70.1	140			

Sample ID	LCS-10340		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 10340		RunNo: 14789					
Prep Date:	11/14/2013		Analysis Date: 11/14/2013		SeqNo: 426466		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.7	1.0	5.000	0	114	73.3	145			
Surr: DNOP	0.54		0.5000		107	70.1	140			

Sample ID	LCSD-10340		SampType: LCSD		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSS02		Batch ID: 10340		RunNo: 14789					
Prep Date:	11/14/2013		Analysis Date: 11/14/2013		SeqNo: 426643		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.1	1.0	5.000	0	103	73.3	145	10.2	20	
Surr: DNOP	0.48		0.5000		95.3	70.1	140	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R14797	RunNo:	14797					
Prep Date:		Analysis Date:	11/14/2013	SeqNo:	427133	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		94.9	80.4	118			

Sample ID	2.5UG GRO LCSB	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R14797	RunNo:	14797					
Prep Date:		Analysis Date:	11/14/2013	SeqNo:	427134	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	101	80	120			
Surr: BFB	20		20.00		102	80.4	118			

Sample ID	1311556-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	NAPIS-1	Batch ID:	R14797	RunNo:	14797					
Prep Date:		Analysis Date:	11/14/2013	SeqNo:	427140	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.52	0.050	0.5000	0	104	67.7	128			
Surr: BFB	20		20.00		101	80.4	118			

Sample ID	1311556-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	NAPIS-1	Batch ID:	R14797	RunNo:	14797					
Prep Date:		Analysis Date:	11/14/2013	SeqNo:	427142	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	94.2	67.7	128	10.1	20	
Surr: BFB	20		20.00		99.5	80.4	118	0	0	

Sample ID	B14	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R14837	RunNo:	14837					
Prep Date:		Analysis Date:	11/15/2013	SeqNo:	427694	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	18		20.00		92.2	80.4	118			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R14837	RunNo:	14837					
Prep Date:		Analysis Date:	11/15/2013	SeqNo:	427695	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	20		20.00		99.6	80.4	118			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID: R14797			RunNo: 14797					
Prep Date:	Analysis Date: 11/14/2013			SeqNo: 427165		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	23		20.00		114	85	136			

Sample ID	100NG BTEX LCS		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSW		Batch ID: R14797		RunNo: 14797					
Prep Date:			Analysis Date: 11/14/2013		SeqNo: 427166		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	21	2.5	20.00	0	104	76.8	124			
Benzene	18	1.0	20.00	0	88.7	80	120			
Toluene	18	1.0	20.00	0	90.6	80	120			
Ethylbenzene	18	1.0	20.00	0	90.7	80	120			
Xylenes, Total	55	2.0	60.00	0	91.1	80	120			
Surr: 4-Bromofluorobenzene	24		20.00		119	85	136			

Sample ID	1311556-002AMS		SampType: MS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	NAPIS-2		Batch ID: R14797		RunNo: 14797					
Prep Date:			Analysis Date: 11/14/2013		SeqNo: 427169		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	27	1.0	20.00	10.19	82.1	73.4	119			
Toluene	17	1.0	20.00	0.4900	84.7	80	120			
Ethylbenzene	26	1.0	20.00	8.307	87.3	80	120			
Xylenes, Total	53	2.0	60.00	1.032	87.0	80	120			
Surr: 4-Bromofluorobenzene	28		20.00		141	85	136			S

Sample ID	1311556-002AMSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles					
Client ID:	NAPIS-2		Batch ID: R14797		RunNo: 14797					
Prep Date:			Analysis Date: 11/14/2013		SeqNo: 427170		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	26	1.0	20.00	10.19	80.4	73.4	119	1.26	20	
Toluene	17	1.0	20.00	0.4900	84.0	80	120	0.813	20	
Ethylbenzene	26	1.0	20.00	8.307	86.1	80	120	0.935	20	
Xylenes, Total	53	2.0	60.00	1.032	86.5	80	120	0.562	20	
Surr: 4-Bromofluorobenzene	28		20.00		140	85	136	0	0	S

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID B14	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles						
Client ID: PBW	Batch ID: R14837			RunNo: 14837						
Prep Date:	Analysis Date: 11/15/2013			SeqNo: 427748		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Surr: 4-Bromofluorobenzene	22		20.00		108	85	136			

Sample ID 100NG BTEX LCS	SampType: LCS			TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSW	Batch ID: R14837			RunNo: 14837						
Prep Date:	Analysis Date: 11/15/2013			SeqNo: 427749		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	24	2.5	20.00	0	120	76.8	124			
Surr: 4-Bromofluorobenzene	23		20.00		114	85	136			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID	mb-10357		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 10357		RunNo: 14847					
Prep Date:	11/15/2013		Analysis Date: 11/15/2013		SeqNo: 427864		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	40								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID	mb-10357	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	10357	RunNo:	14847					
Prep Date:	11/15/2013	Analysis Date:	11/15/2013	SeqNo:	427864	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	110		200.0		54.7	22.7	98			
Surr: Phenol-d5	90		200.0		45.1	23.4	74.9			
Surr: 2,4,6-Tribromophenol	140		200.0		71.8	23.3	111			
Surr: Nitrobenzene-d5	76		100.0		75.7	36.8	111			
Surr: 2-Fluorobiphenyl	72		100.0		71.6	38.3	110			
Surr: 4-Terphenyl-d14	85		100.0		85.3	52.1	116			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID	Ics-10357		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 10357		RunNo: 14847					
Prep Date:	11/15/2013		Analysis Date: 11/15/2013		SeqNo: 427865		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	80	10	100.0	0	79.9	48	101			
4-Chloro-3-methylphenol	150	10	200.0	0	77.3	47.9	109			
2-Chlorophenol	150	10	200.0	0	73.0	40	105			
1,4-Dichlorobenzene	59	10	100.0	0	59.3	40.8	94.3			
2,4-Dinitrotoluene	74	10	100.0	0	74.5	28.3	131			
N-Nitrosodi-n-propylamine	77	10	100.0	0	76.8	46.2	119			
4-Nitrophenol	78	10	200.0	0	39.2	10.5	67.9			
Pentachlorophenol	120	20	200.0	0	61.3	22.4	81.1			
Phenol	97	10	200.0	0	48.5	21.4	72.9			
Pyrene	79	10	100.0	0	78.7	46.9	109			
1,2,4-Trichlorobenzene	57	10	100.0	0	56.7	43.1	98.4			
Surr: 2-Fluorophenol	110		200.0		56.4	22.7	98			
Surr: Phenol-d5	96		200.0		48.1	23.4	74.9			
Surr: 2,4,6-Tribromophenol	180		200.0		91.7	23.3	111			
Surr: Nitrobenzene-d5	74		100.0		74.4	36.8	111			
Surr: 2-Fluorobiphenyl	77		100.0		76.9	38.3	110			
Surr: 4-Terphenyl-d14	86		100.0		85.7	52.1	116			

Sample ID	1311556-003Ems	SampType: MS			TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	KA-3	Batch ID: 10357			RunNo: 14847					
Prep Date:	11/15/2013	Analysis Date: 11/15/2013			SeqNo: 427872		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	72.1	70	130			
4-Chloro-3-methylphenol	130	10	200.0	0	65.2	70	130			S
2-Chlorophenol	110	10	200.0	0	55.1	70	130			S
1,4-Dichlorobenzene	55	10	100.0	0	54.6	70	130			S
2,4-Dinitrotoluene	66	10	100.0	0	66.1	70	130			S
N-Nitrosodi-n-propylamine	65	10	100.0	0	64.8	70	130			S
4-Nitrophenol	47	10	200.0	0	23.4	70	130			S
Pentachlorophenol	98	20	200.0	5.800	46.3	70	130			S
Phenol	60	10	200.0	0	29.9	70	130			S
Pyrene	69	10	100.0	0	69.4	70	130			S
1,2,4-Trichlorobenzene	56	10	100.0	0	56.4	70	130			S
Surr: 2-Fluorophenol	80		200.0		40.0	22.7	98			
Surr: Phenol-d5	66		200.0		33.2	23.4	74.9			
Surr: 2,4,6-Tribromophenol	150		200.0		75.0	23.3	111			
Surr: Nitrobenzene-d5	71		100.0		71.2	36.8	111			
Surr: 2-Fluorobiphenyl	72		100.0		72.1	38.3	110			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311556

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4th Quarter

Sample ID	1311556-003Ems	SampType:	MS	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	KA-3	Batch ID:	10357	RunNo:	14847					
Prep Date:	11/15/2013	Analysis Date:	11/15/2013	SeqNo:	427872	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	69		100.0		69.3	52.1	116			

Sample ID	1311556-003Emsd	SampType:	MSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	KA-3	Batch ID:	10357	RunNo:	14847					
Prep Date:	11/15/2013	Analysis Date:	11/15/2013	SeqNo:	427873	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	78	10	100.0	0	78.1	70	130	7.96	20	
4-Chloro-3-methylphenol	130	10	200.0	0	65.7	70	130	0.795	20	S
2-Chlorophenol	100	10	200.0	0	50.6	70	130	8.44	20	S
1,4-Dichlorobenzene	61	10	100.0	0	61.3	70	130	11.7	20	S
2,4-Dinitrotoluene	70	10	100.0	0	70.4	70	130	6.36	20	
N-Nitrosodi-n-propylamine	62	10	100.0	0	62.1	70	130	4.35	20	S
4-Nitrophenol	41	10	200.0	0	20.6	70	130	12.7	20	S
Pentachlorophenol	110	20	200.0	5.800	51.5	70	130	9.99	20	S
Phenol	56	10	200.0	0	27.9	70	130	7.10	20	S
Pyrene	77	10	100.0	0	76.9	70	130	10.2	20	
1,2,4-Trichlorobenzene	56	10	100.0	0	55.7	70	130	1.28	20	S
Surr: 2-Fluorophenol	68		200.0		33.9	22.7	98	0	0	
Surr: Phenol-d5	61		200.0		30.7	23.4	74.9	0	0	
Surr: 2,4,6-Tribromophenol	160		200.0		78.3	23.3	111	0	0	
Surr: Nitrobenzene-d5	62		100.0		62.5	36.8	111	0	0	
Surr: 2-Fluorobiphenyl	69		100.0		68.9	38.3	110	0	0	
Surr: 4-Terphenyl-d14	67		100.0		67.5	52.1	116	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1311556

RcptNo: 1

Received by/date:

Oct 11/13/13

Logged By:

Michelle Garcia

11/13/2013 1:15:00 PM

Michelle Garcia

Completed By:

Michelle Garcia

11/13/2013 3:09:07 PM

Michelle Garcia

Reviewed By:

[Signature]

11/14/13

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☒ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☒ No VOA Vials ☐ -000A: 2,3,4 OF 4 HAVE SOME HEAD SPACE *11/14/13*
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:

16
or >12 unless noted)

Adjusted? *YES*

Checked by: *[Signature]*

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks: *FOR METALS ANALYSIS: ADDED 1 mL HNO₃ TO -001B & -005B, 2 mL HNO₃ TO -006B, AND 0.4 mL HNO₃ TO -003D & -006C FOR ACCEPTABLE pH. HELD IN LOGIN FOR 24 HOURS AFTER PRESERVATION. 11/14/13 @ 1030*

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			



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

December 06, 2013

Cheryl Johnson

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

RE: 2013 4TH Quarter

OrderNo.: 1311561

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 10 sample(s) on 11/13/2013 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 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 8:30:00 AM

Lab ID: 1311561-001

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/15/2013 10:49:19 AM	10340
Surr: DNOP	124	70.1-140		%REC	1	11/15/2013 10:49:19 AM	10340
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.055	0.050		mg/L	1	11/14/2013 4:52:57 PM	R14824
Surr: BFB	96.7	80.4-118		%REC	1	11/14/2013 4:52:57 PM	R14824
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.17	0.10		mg/L	1	11/14/2013 1:56:52 AM	R14794
Chloride	850	25		mg/L	50	11/15/2013 4:04:55 AM	R14833
Bromide	0.73	0.10		mg/L	1	11/14/2013 1:56:52 AM	R14794
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/14/2013 1:56:52 AM	R14794
Sulfate	150	25		mg/L	50	11/15/2013 4:04:55 AM	R14833
Nitrate+Nitrite as N	1.3	1.0		mg/L	5	11/20/2013 2:01:25 PM	R14961
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.063	0.0020		mg/L	1	11/21/2013 12:43:26 PM	R14978
Cadmium	ND	0.0020		mg/L	1	11/21/2013 12:43:26 PM	R14978
Calcium	110	5.0		mg/L	5	11/22/2013 3:00:27 PM	R15016
Chromium	ND	0.0060		mg/L	1	11/21/2013 12:43:26 PM	R14978
Copper	ND	0.0060		mg/L	1	11/21/2013 12:43:26 PM	R14978
Iron	ND	0.020		mg/L	1	11/22/2013 2:58:37 PM	R15016
Magnesium	18	1.0		mg/L	1	11/21/2013 12:43:26 PM	R14978
Manganese	0.066	0.0020	*	mg/L	1	11/22/2013 2:58:37 PM	R15016
Potassium	2.8	1.0		mg/L	1	11/21/2013 12:43:26 PM	R14978
Silver	ND	0.0050		mg/L	1	11/21/2013 12:43:26 PM	R14978
Sodium	710	50		mg/L	50	11/21/2013 12:47:11 PM	R14978
Zinc	ND	0.010		mg/L	1	11/22/2013 2:58:37 PM	R15016
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.058	0.0020		mg/L	1	11/20/2013 4:09:40 PM	10405
Cadmium	ND	0.0020		mg/L	1	11/20/2013 4:09:40 PM	10405
Chromium	ND	0.0060		mg/L	1	11/20/2013 4:09:40 PM	10405
Copper	ND	0.0060		mg/L	1	11/20/2013 4:09:40 PM	10405
Iron	ND	0.020		mg/L	1	11/20/2013 4:09:40 PM	10405
Manganese	0.070	0.0020	*	mg/L	1	11/20/2013 4:09:40 PM	10405
Silver	ND	0.0050		mg/L	1	11/20/2013 4:09:40 PM	10405
Zinc	ND	0.010		mg/L	1	11/20/2013 4:09:40 PM	10405
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0021	0.0010		mg/L	1	11/19/2013 2:56:24 PM	R14903
Lead	ND	0.0010		mg/L	1	11/19/2013 2:56:24 PM	R14903

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 8:30:00 AM

Lab ID: 1311561-001

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Selenium	0.013	0.0010		mg/L	1	11/19/2013 2:56:24 PM	R14903
Uranium	0.054	0.0050	*	mg/L	5	11/19/2013 3:12:23 PM	R14903
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0018	0.0010		mg/L	1	11/21/2013 1:34:32 PM	10405
Lead	ND	0.0010		mg/L	1	11/21/2013 1:34:32 PM	10405
Selenium	0.011	0.0010		mg/L	1	11/21/2013 1:34:32 PM	10405
Uranium	0.057	0.0050	*	mg/L	5	11/21/2013 2:03:15 PM	10405
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	11/18/2013 2:45:19 PM	10366
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Toluene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Ethylbenzene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Methyl tert-butyl ether (MTBE)	62	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Naphthalene	ND	2.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
2-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Acetone	ND	10		µg/L	1	11/18/2013 6:44:58 PM	R14881
Bromobenzene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Bromodichloromethane	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Bromoform	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Bromomethane	ND	3.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
2-Butanone	ND	10		µg/L	1	11/18/2013 6:44:58 PM	R14881
Carbon disulfide	ND	10		µg/L	1	11/18/2013 6:44:58 PM	R14881
Carbon Tetrachloride	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Chlorobenzene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Chloroethane	ND	2.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Chloroform	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Chloromethane	ND	3.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
2-Chlorotoluene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
4-Chlorotoluene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
cis-1,2-DCE	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/18/2013 6:44:58 PM	R14881

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 8:30:00 AM

Lab ID: 1311561-001

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
Dibromochloromethane	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Dibromomethane	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,1-Dichloroethane	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,1-Dichloroethene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,2-Dichloropropane	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,3-Dichloropropane	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
2,2-Dichloropropane	ND	2.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,1-Dichloropropene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Hexachlorobutadiene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
2-Hexanone	ND	10		µg/L	1	11/18/2013 6:44:58 PM	R14881
Isopropylbenzene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
4-Isopropyltoluene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
4-Methyl-2-pentanone	ND	10		µg/L	1	11/18/2013 6:44:58 PM	R14881
Methylene Chloride	ND	3.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
n-Butylbenzene	ND	3.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
n-Propylbenzene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
sec-Butylbenzene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Styrene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
tert-Butylbenzene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
trans-1,2-DCE	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Trichlorofluoromethane	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Vinyl chloride	ND	1.0		µg/L	1	11/18/2013 6:44:58 PM	R14881
Xylenes, Total	ND	1.5		µg/L	1	11/18/2013 6:44:58 PM	R14881
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	11/18/2013 6:44:58 PM	R14881
Surr: 4-Bromofluorobenzene	95.7	70-130		%REC	1	11/18/2013 6:44:58 PM	R14881

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-10

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 8:30:00 AM

Lab ID: 1311561-001

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: Dibromofluoromethane	100	70-130		%REC	1	11/18/2013 6:44:58 PM	R14881
Surr: Toluene-d8	101	70-130		%REC	1	11/18/2013 6:44:58 PM	R14881

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 9:30:00 AM

Lab ID: 1311561-002

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/15/2013 11:20:33 AM	10340
Surr: DNOP	125	70.1-140		%REC	1	11/15/2013 11:20:33 AM	10340
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/14/2013 6:26:35 PM	R14824
Surr: BFB	95.8	80.4-118		%REC	1	11/14/2013 6:26:35 PM	R14824
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.28	0.10		mg/L	1	11/14/2013 2:46:29 AM	R14794
Chloride	65	10		mg/L	20	11/14/2013 2:58:53 AM	R14794
Bromide	0.26	0.10		mg/L	1	11/14/2013 2:46:29 AM	R14794
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/14/2013 2:46:29 AM	R14794
Sulfate	170	10		mg/L	20	11/14/2013 2:58:53 AM	R14794
Nitrate+Nitrite as N	4.7	1.0		mg/L	5	11/20/2013 2:51:03 PM	R14961
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.038	0.0020		mg/L	1	11/18/2013 3:27:00 PM	R14880
Cadmium	ND	0.0020		mg/L	1	11/18/2013 3:27:00 PM	R14880
Calcium	1.9	1.0		mg/L	1	11/18/2013 3:27:00 PM	R14880
Chromium	ND	0.0060		mg/L	1	11/18/2013 3:27:00 PM	R14880
Copper	ND	0.0060		mg/L	1	11/18/2013 3:27:00 PM	R14880
Iron	ND	0.020		mg/L	1	11/18/2013 3:27:00 PM	R14880
Magnesium	ND	1.0		mg/L	1	11/18/2013 3:27:00 PM	R14880
Manganese	0.0075	0.0020		mg/L	1	11/18/2013 3:27:00 PM	R14880
Potassium	1.0	1.0		mg/L	1	11/18/2013 3:27:00 PM	R14880
Silver	ND	0.0050		mg/L	1	11/21/2013 12:49:10 PM	R14978
Sodium	270	5.0		mg/L	5	11/18/2013 3:32:46 PM	R14880
Zinc	0.029	0.010		mg/L	1	11/18/2013 3:27:00 PM	R14880
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.048	0.0020		mg/L	1	11/20/2013 4:19:23 PM	10405
Cadmium	ND	0.0020		mg/L	1	11/20/2013 4:19:23 PM	10405
Chromium	ND	0.0060		mg/L	1	11/20/2013 4:19:23 PM	10405
Copper	ND	0.0060		mg/L	1	11/20/2013 4:19:23 PM	10405
Iron	1.2	0.10	*	mg/L	5	11/20/2013 4:21:01 PM	10405
Manganese	0.053	0.0020	*	mg/L	1	11/20/2013 4:19:23 PM	10405
Silver	ND	0.0050		mg/L	1	11/20/2013 4:19:23 PM	10405
Zinc	ND	0.010		mg/L	1	11/20/2013 4:19:23 PM	10405
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0012	0.0010		mg/L	1	11/19/2013 2:59:03 PM	R14903
Lead	ND	0.0010		mg/L	1	11/19/2013 2:59:03 PM	R14903

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 9:30:00 AM

Lab ID: 1311561-002

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Selenium	0.0046	0.0010		mg/L	1	11/19/2013 2:59:03 PM	R14903
Uranium	0.041	0.0010	*	mg/L	1	11/19/2013 2:59:03 PM	R14903
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0012	0.0010		mg/L	1	11/21/2013 1:41:42 PM	10405
Lead	0.0019	0.0010		mg/L	1	11/21/2013 1:41:42 PM	10405
Selenium	0.0036	0.0010		mg/L	1	11/21/2013 1:41:42 PM	10405
Uranium	0.039	0.0010	*	mg/L	1	11/21/2013 1:41:42 PM	10405
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	11/18/2013 2:50:51 PM	10366
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Toluene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Ethylbenzene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Naphthalene	ND	2.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
2-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Acetone	ND	10		µg/L	1	11/18/2013 7:16:42 PM	R14881
Bromobenzene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Bromodichloromethane	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Bromoform	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Bromomethane	ND	3.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
2-Butanone	ND	10		µg/L	1	11/18/2013 7:16:42 PM	R14881
Carbon disulfide	ND	10		µg/L	1	11/18/2013 7:16:42 PM	R14881
Carbon Tetrachloride	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Chlorobenzene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Chloroethane	ND	2.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Chloroform	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Chloromethane	ND	3.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
2-Chlorotoluene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
4-Chlorotoluene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
cis-1,2-DCE	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/18/2013 7:16:42 PM	R14881

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 9:30:00 AM

Lab ID: 1311561-002

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Dibromochloromethane	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Dibromomethane	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,1-Dichloroethane	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,1-Dichloroethene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,2-Dichloropropane	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,3-Dichloropropane	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
2,2-Dichloropropane	ND	2.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,1-Dichloropropene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Hexachlorobutadiene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
2-Hexanone	ND	10		µg/L	1	11/18/2013 7:16:42 PM	R14881
Isopropylbenzene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
4-Isopropyltoluene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
4-Methyl-2-pentanone	ND	10		µg/L	1	11/18/2013 7:16:42 PM	R14881
Methylene Chloride	ND	3.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
n-Butylbenzene	ND	3.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
n-Propylbenzene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
sec-Butylbenzene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Styrene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
tert-Butylbenzene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
trans-1,2-DCE	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Trichlorofluoromethane	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Vinyl chloride	ND	1.0		µg/L	1	11/18/2013 7:16:42 PM	R14881
Xylenes, Total	ND	1.5		µg/L	1	11/18/2013 7:16:42 PM	R14881
Surr: 1,2-Dichloroethane-d4	95.1	70-130		%REC	1	11/18/2013 7:16:42 PM	R14881
Surr: 4-Bromofluorobenzene	95.2	70-130		%REC	1	11/18/2013 7:16:42 PM	R14881

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 9:30:00 AM

Lab ID: 1311561-002

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: Dibromofluoromethane	95.9	70-130		%REC	1	11/18/2013 7:16:42 PM	R14881
Surr: Toluene-d8	98.6	70-130		%REC	1	11/18/2013 7:16:42 PM	R14881

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 10:45:00 AM

Lab ID: 1311561-003

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.063	0.0020		mg/L	1	11/18/2013 3:38:06 PM	R14880
Cadmium	ND	0.0020		mg/L	1	11/18/2013 3:38:06 PM	R14880
Chromium	ND	0.0060		mg/L	1	11/18/2013 3:38:06 PM	R14880
Copper	ND	0.0060		mg/L	1	11/18/2013 3:38:06 PM	R14880
Iron	0.33	0.020	*	mg/L	1	11/18/2013 3:38:06 PM	R14880
Manganese	0.30	0.0020	*	mg/L	1	11/18/2013 3:38:06 PM	R14880
Silver	ND	0.0050		mg/L	1	11/18/2013 4:28:35 PM	R14880
Zinc	0.028	0.010		mg/L	1	11/18/2013 3:38:06 PM	R14880
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.061	0.0020		mg/L	1	11/20/2013 4:22:43 PM	10405
Cadmium	ND	0.0020		mg/L	1	11/20/2013 4:22:43 PM	10405
Chromium	ND	0.0060		mg/L	1	11/20/2013 4:22:43 PM	10405
Copper	ND	0.0060		mg/L	1	11/20/2013 4:22:43 PM	10405
Iron	0.38	0.020	*	mg/L	1	11/20/2013 4:22:43 PM	10405
Manganese	0.28	0.0020	*	mg/L	1	11/20/2013 4:22:43 PM	10405
Silver	ND	0.0050		mg/L	1	11/20/2013 4:22:43 PM	10405
Zinc	ND	0.010		mg/L	1	11/20/2013 4:22:43 PM	10405
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0019	0.0010		mg/L	1	11/19/2013 3:01:43 PM	R14903
Lead	ND	0.0010		mg/L	1	11/19/2013 3:01:43 PM	R14903
Selenium	0.0052	0.0010		mg/L	1	11/19/2013 3:01:43 PM	R14903
Uranium	0.053	0.0050	*	mg/L	5	11/19/2013 3:25:45 PM	R14903
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0018	0.0010		mg/L	1	11/21/2013 1:44:06 PM	10405
Lead	ND	0.0010		mg/L	1	11/21/2013 1:44:06 PM	10405
Selenium	0.0042	0.0010		mg/L	1	11/21/2013 1:44:06 PM	10405
Uranium	0.053	0.0050	*	mg/L	5	11/21/2013 2:15:13 PM	10405
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	11/18/2013 2:52:40 PM	10366
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Toluene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Ethylbenzene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Methyl tert-butyl ether (MTBE)	1700	20		µg/L	20	11/18/2013 8:20:17 PM	R14881
1,2,4-Trimethylbenzene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
1,3,5-Trimethylbenzene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
1,2-Dichloroethane (EDC)	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 10:45:00 AM

Lab ID: 1311561-003

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
1,2-Dibromoethane (EDB)	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Naphthalene	ND	4.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
1-Methylnaphthalene	ND	8.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
2-Methylnaphthalene	ND	8.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Acetone	ND	20		µg/L	2	11/18/2013 8:51:52 PM	R14881
Bromobenzene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Bromodichloromethane	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Bromoform	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Bromomethane	ND	6.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
2-Butanone	ND	20		µg/L	2	11/18/2013 8:51:52 PM	R14881
Carbon disulfide	ND	20		µg/L	2	11/18/2013 8:51:52 PM	R14881
Carbon Tetrachloride	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Chlorobenzene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Chloroethane	ND	4.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Chloroform	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Chloromethane	ND	6.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
2-Chlorotoluene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
4-Chlorotoluene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
cis-1,2-DCE	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
cis-1,3-Dichloropropene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
1,2-Dibromo-3-chloropropane	ND	4.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Dibromochloromethane	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Dibromomethane	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
1,2-Dichlorobenzene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
1,3-Dichlorobenzene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
1,4-Dichlorobenzene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Dichlorodifluoromethane	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
1,1-Dichloroethane	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
1,1-Dichloroethene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
1,2-Dichloropropane	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
1,3-Dichloropropane	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
2,2-Dichloropropane	ND	4.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
1,1-Dichloropropene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Hexachlorobutadiene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
2-Hexanone	ND	20		µg/L	2	11/18/2013 8:51:52 PM	R14881
Isopropylbenzene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
4-Isopropyltoluene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
4-Methyl-2-pentanone	ND	20		µg/L	2	11/18/2013 8:51:52 PM	R14881
Methylene Chloride	ND	6.0		µg/L	2	11/18/2013 8:51:52 PM	R14881

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 10:45:00 AM

Lab ID: 1311561-003

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
n-Butylbenzene	ND	6.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
n-Propylbenzene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
sec-Butylbenzene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Styrene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
tert-Butylbenzene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
1,1,1,2-Tetrachloroethane	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
1,1,2,2-Tetrachloroethane	ND	4.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Tetrachloroethene (PCE)	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
trans-1,2-DCE	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
trans-1,3-Dichloropropene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
1,2,3-Trichlorobenzene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
1,2,4-Trichlorobenzene	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
1,1,1-Trichloroethane	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
1,1,2-Trichloroethane	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Trichloroethene (TCE)	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Trichlorofluoromethane	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
1,2,3-Trichloropropane	ND	4.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Vinyl chloride	ND	2.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Xylenes, Total	ND	3.0		µg/L	2	11/18/2013 8:51:52 PM	R14881
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	2	11/18/2013 8:51:52 PM	R14881
Surr: 4-Bromofluorobenzene	90.6	70-130		%REC	2	11/18/2013 8:51:52 PM	R14881
Surr: Dibromofluoromethane	98.7	70-130		%REC	2	11/18/2013 8:51:52 PM	R14881
Surr: Toluene-d8	96.6	70-130		%REC	2	11/18/2013 8:51:52 PM	R14881

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 11:30:00 AM

Lab ID: 1311561-004

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	1.6	0.010		mg/L	5	11/18/2013 3:50:33 PM	R14880
Cadmium	ND	0.0020		mg/L	1	11/18/2013 3:48:48 PM	R14880
Chromium	ND	0.0060		mg/L	1	11/18/2013 3:48:48 PM	R14880
Copper	ND	0.0060		mg/L	1	11/18/2013 3:48:48 PM	R14880
Iron	4.6	0.10	*	mg/L	5	11/18/2013 3:50:33 PM	R14880
Manganese	2.3	0.010	*	mg/L	5	11/18/2013 3:50:33 PM	R14880
Silver	ND	0.0050		mg/L	1	11/18/2013 3:48:48 PM	R14880
Zinc	0.021	0.010		mg/L	1	11/18/2013 3:48:48 PM	R14880
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	1.5	0.010		mg/L	5	11/20/2013 4:28:12 PM	10405
Cadmium	ND	0.0020		mg/L	1	11/20/2013 4:26:28 PM	10405
Chromium	ND	0.0060		mg/L	1	11/20/2013 4:26:28 PM	10405
Copper	ND	0.0060		mg/L	1	11/20/2013 4:26:28 PM	10405
Iron	4.4	0.10	*	mg/L	5	11/20/2013 4:28:12 PM	10405
Manganese	2.2	0.010	*	mg/L	5	11/20/2013 4:28:12 PM	10405
Silver	ND	0.0050		mg/L	1	11/20/2013 4:26:28 PM	10405
Zinc	ND	0.010		mg/L	1	11/20/2013 4:26:28 PM	10405
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.012	0.0010	*	mg/L	1	11/19/2013 3:07:04 PM	R14903
Lead	ND	0.0010		mg/L	1	11/19/2013 3:07:04 PM	R14903
Selenium	0.015	0.0010		mg/L	1	11/19/2013 3:07:04 PM	R14903
Uranium	0.0093	0.0010		mg/L	1	11/19/2013 3:07:04 PM	R14903
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.011	0.0010	*	mg/L	1	11/21/2013 1:46:29 PM	10405
Lead	ND	0.0010		mg/L	1	11/21/2013 1:46:29 PM	10405
Selenium	0.015	0.0010		mg/L	1	11/21/2013 1:46:29 PM	10405
Uranium	0.0094	0.0010		mg/L	1	11/21/2013 1:46:29 PM	10405
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	11/18/2013 2:54:30 PM	10366
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	3300	50		µg/L	50	11/18/2013 9:55:23 PM	R14881
Toluene	46	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
Ethylbenzene	130	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
Methyl tert-butyl ether (MTBE)	1100	50		µg/L	50	11/18/2013 9:55:23 PM	R14881
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 11:30:00 AM

Lab ID: 1311561-004

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: DJF		
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
Naphthalene	ND	10		µg/L	5	11/18/2013 10:27:04 PM	R14881
1-Methylnaphthalene	27	20		µg/L	5	11/18/2013 10:27:04 PM	R14881
2-Methylnaphthalene	ND	20		µg/L	5	11/18/2013 10:27:04 PM	R14881
Acetone	ND	50		µg/L	5	11/18/2013 10:27:04 PM	R14881
Bromobenzene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
Bromodichloromethane	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
Bromoform	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
Bromomethane	ND	15		µg/L	5	11/18/2013 10:27:04 PM	R14881
2-Butanone	ND	50		µg/L	5	11/18/2013 10:27:04 PM	R14881
Carbon disulfide	ND	50		µg/L	5	11/18/2013 10:27:04 PM	R14881
Carbon Tetrachloride	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
Chlorobenzene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
Chloroethane	ND	10		µg/L	5	11/18/2013 10:27:04 PM	R14881
Chloroform	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
Chloromethane	ND	15		µg/L	5	11/18/2013 10:27:04 PM	R14881
2-Chlorotoluene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
4-Chlorotoluene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
cis-1,2-DCE	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	11/18/2013 10:27:04 PM	R14881
Dibromochloromethane	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
Dibromomethane	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
1,2-Dichlorobenzene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
1,3-Dichlorobenzene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
1,4-Dichlorobenzene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
Dichlorodifluoromethane	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
1,1-Dichloroethane	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
1,1-Dichloroethene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
1,2-Dichloropropane	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
1,3-Dichloropropane	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
2,2-Dichloropropane	ND	10		µg/L	5	11/18/2013 10:27:04 PM	R14881
1,1-Dichloropropene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
Hexachlorobutadiene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
2-Hexanone	ND	50		µg/L	5	11/18/2013 10:27:04 PM	R14881
Isopropylbenzene	6.6	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
4-Isopropyltoluene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
4-Methyl-2-pentanone	ND	50		µg/L	5	11/18/2013 10:27:04 PM	R14881
Methylene Chloride	ND	15		µg/L	5	11/18/2013 10:27:04 PM	R14881

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 11:30:00 AM

Lab ID: 1311561-004

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
n-Butylbenzene	ND	15		µg/L	5	11/18/2013 10:27:04 PM	R14881
n-Propylbenzene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
sec-Butylbenzene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
Styrene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
tert-Butylbenzene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	11/18/2013 10:27:04 PM	R14881
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
trans-1,2-DCE	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
1,1,1-Trichloroethane	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
1,1,2-Trichloroethane	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
Trichloroethene (TCE)	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
Trichlorofluoromethane	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
1,2,3-Trichloropropane	ND	10		µg/L	5	11/18/2013 10:27:04 PM	R14881
Vinyl chloride	ND	5.0		µg/L	5	11/18/2013 10:27:04 PM	R14881
Xylenes, Total	19	7.5		µg/L	5	11/18/2013 10:27:04 PM	R14881
Surr: 1,2-Dichloroethane-d4	99.0	70-130		%REC	5	11/18/2013 10:27:04 PM	R14881
Surr: 4-Bromofluorobenzene	99.9	70-130		%REC	5	11/18/2013 10:27:04 PM	R14881
Surr: Dibromofluoromethane	106	70-130		%REC	5	11/18/2013 10:27:04 PM	R14881
Surr: Toluene-d8	93.8	70-130		%REC	5	11/18/2013 10:27:04 PM	R14881

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 2:00:00 PM

Lab ID: 1311561-005

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.020	0.0020		mg/L	1	11/18/2013 3:52:12 PM	R14880
Cadmium	ND	0.0020		mg/L	1	11/18/2013 3:52:12 PM	R14880
Chromium	ND	0.0060		mg/L	1	11/18/2013 3:52:12 PM	R14880
Copper	ND	0.0060		mg/L	1	11/18/2013 3:52:12 PM	R14880
Iron	ND	0.020		mg/L	1	11/18/2013 3:52:12 PM	R14880
Manganese	0.021	0.0020		mg/L	1	11/18/2013 3:52:12 PM	R14880
Silver	ND	0.0050		mg/L	1	11/18/2013 3:52:12 PM	R14880
Zinc	0.014	0.010		mg/L	1	11/18/2013 3:52:12 PM	R14880
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.019	0.0020		mg/L	1	11/20/2013 4:29:49 PM	10405
Cadmium	ND	0.0020		mg/L	1	11/20/2013 4:29:49 PM	10405
Chromium	ND	0.0060		mg/L	1	11/20/2013 4:29:49 PM	10405
Copper	ND	0.0060		mg/L	1	11/20/2013 4:29:49 PM	10405
Iron	ND	0.020		mg/L	1	11/20/2013 4:29:49 PM	10405
Manganese	0.021	0.0020		mg/L	1	11/20/2013 4:29:49 PM	10405
Silver	ND	0.0050		mg/L	1	11/20/2013 4:29:49 PM	10405
Zinc	ND	0.010		mg/L	1	11/20/2013 4:29:49 PM	10405
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0012	0.0010		mg/L	1	11/19/2013 3:09:43 PM	R14903
Lead	ND	0.0010		mg/L	1	11/19/2013 3:09:43 PM	R14903
Selenium	0.0020	0.0010		mg/L	1	11/19/2013 3:09:43 PM	R14903
Uranium	0.016	0.0010		mg/L	1	11/19/2013 3:09:43 PM	R14903
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	11/21/2013 1:48:52 PM	10405
Lead	ND	0.0010		mg/L	1	11/21/2013 1:48:52 PM	10405
Selenium	0.0012	0.0010		mg/L	1	11/21/2013 1:48:52 PM	10405
Uranium	0.016	0.0010		mg/L	1	11/21/2013 1:48:52 PM	10405
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	11/18/2013 2:56:19 PM	10366
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Toluene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Ethylbenzene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Methyl tert-butyl ether (MTBE)	17	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 2:00:00 PM

Lab ID: 1311561-005

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Naphthalene	ND	2.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1-Methylnaphthalene	ND	4.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
2-Methylnaphthalene	ND	4.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Acetone	ND	10		µg/L	1	11/19/2013 1:05:19 AM	R14881
Bromobenzene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Bromodichloromethane	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Bromoform	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Bromomethane	ND	3.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
2-Butanone	ND	10		µg/L	1	11/19/2013 1:05:19 AM	R14881
Carbon disulfide	ND	10		µg/L	1	11/19/2013 1:05:19 AM	R14881
Carbon Tetrachloride	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Chlorobenzene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Chloroethane	ND	2.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Chloroform	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Chloromethane	ND	3.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
2-Chlorotoluene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
4-Chlorotoluene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
cis-1,2-DCE	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Dibromochloromethane	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Dibromomethane	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1,1-Dichloroethane	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1,1-Dichloroethene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1,2-Dichloropropane	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1,3-Dichloropropane	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
2,2-Dichloropropane	ND	2.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1,1-Dichloropropene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Hexachlorobutadiene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
2-Hexanone	ND	10		µg/L	1	11/19/2013 1:05:19 AM	R14881
Isopropylbenzene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
4-Isopropyltoluene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
4-Methyl-2-pentanone	ND	10		µg/L	1	11/19/2013 1:05:19 AM	R14881
Methylene Chloride	ND	3.0		µg/L	1	11/19/2013 1:05:19 AM	R14881

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 2:00:00 PM

Lab ID: 1311561-005

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
n-Butylbenzene	ND	3.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
n-Propylbenzene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
sec-Butylbenzene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Styrene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
tert-Butylbenzene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
trans-1,2-DCE	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Trichlorofluoromethane	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Vinyl chloride	ND	1.0		µg/L	1	11/19/2013 1:05:19 AM	R14881
Xylenes, Total	ND	1.5		µg/L	1	11/19/2013 1:05:19 AM	R14881
Surr: 1,2-Dichloroethane-d4	97.1	70-130		%REC	1	11/19/2013 1:05:19 AM	R14881
Surr: 4-Bromofluorobenzene	90.8	70-130		%REC	1	11/19/2013 1:05:19 AM	R14881
Surr: Dibromofluoromethane	99.2	70-130		%REC	1	11/19/2013 1:05:19 AM	R14881
Surr: Toluene-d8	96.4	70-130		%REC	1	11/19/2013 1:05:19 AM	R14881

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 2:55:00 PM

Lab ID: 1311561-006

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.084	0.0020		mg/L	1	11/18/2013 3:55:52 PM	R14880
Cadmium	ND	0.0020		mg/L	1	11/18/2013 3:55:52 PM	R14880
Chromium	ND	0.0060		mg/L	1	11/18/2013 3:55:52 PM	R14880
Copper	ND	0.0060		mg/L	1	11/18/2013 3:55:52 PM	R14880
Iron	0.060	0.020		mg/L	1	11/18/2013 3:55:52 PM	R14880
Manganese	0.031	0.0020		mg/L	1	11/18/2013 3:55:52 PM	R14880
Silver	ND	0.0050		mg/L	1	11/18/2013 3:55:52 PM	R14880
Zinc	0.022	0.010		mg/L	1	11/18/2013 3:55:52 PM	R14880
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.11	0.0020		mg/L	1	11/20/2013 4:33:29 PM	10405
Cadmium	ND	0.0020		mg/L	1	11/20/2013 4:33:29 PM	10405
Chromium	ND	0.0060		mg/L	1	11/20/2013 4:33:29 PM	10405
Copper	ND	0.0060		mg/L	1	11/20/2013 4:33:29 PM	10405
Iron	0.47	0.020	*	mg/L	1	11/20/2013 4:33:29 PM	10405
Manganese	0.047	0.0020		mg/L	1	11/20/2013 4:33:29 PM	10405
Silver	ND	0.0050		mg/L	1	11/20/2013 4:33:29 PM	10405
Zinc	ND	0.010		mg/L	1	11/20/2013 4:33:29 PM	10405
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0017	0.0010		mg/L	1	11/19/2013 3:23:05 PM	R14903
Lead	ND	0.0010		mg/L	1	11/19/2013 3:23:05 PM	R14903
Selenium	0.0046	0.0010		mg/L	1	11/19/2013 3:23:05 PM	R14903
Uranium	0.050	0.0050	*	mg/L	5	11/19/2013 3:31:06 PM	R14903
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0018	0.0010		mg/L	1	11/21/2013 1:51:16 PM	10405
Lead	ND	0.0010		mg/L	1	11/21/2013 1:51:16 PM	10405
Selenium	0.0041	0.0010		mg/L	1	11/21/2013 1:51:16 PM	10405
Uranium	0.053	0.0050	*	mg/L	5	11/21/2013 2:17:36 PM	10405
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	11/18/2013 2:58:10 PM	10366
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Toluene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Ethylbenzene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Methyl tert-butyl ether (MTBE)	2600	20		µg/L	20	11/19/2013 11:32:53 AM	R14913
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 2:55:00 PM

Lab ID: 1311561-006

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Naphthalene	ND	2.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
1-Methylnaphthalene	ND	4.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
2-Methylnaphthalene	ND	4.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Acetone	ND	10		µg/L	1	11/19/2013 1:36:59 AM	R14881
Bromobenzene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Bromodichloromethane	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Bromoform	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Bromomethane	ND	3.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
2-Butanone	ND	10		µg/L	1	11/19/2013 1:36:59 AM	R14881
Carbon disulfide	ND	10		µg/L	1	11/19/2013 1:36:59 AM	R14881
Carbon Tetrachloride	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Chlorobenzene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Chloroethane	4.7	2.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Chloroform	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Chloromethane	ND	3.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
2-Chlorotoluene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
4-Chlorotoluene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
cis-1,2-DCE	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Dibromochloromethane	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Dibromomethane	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
1,1-Dichloroethane	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
1,1-Dichloroethene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
1,2-Dichloropropane	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
1,3-Dichloropropane	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
2,2-Dichloropropane	ND	2.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
1,1-Dichloropropene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Hexachlorobutadiene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
2-Hexanone	ND	10		µg/L	1	11/19/2013 1:36:59 AM	R14881
Isopropylbenzene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
4-Isopropyltoluene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
4-Methyl-2-pentanone	ND	10		µg/L	1	11/19/2013 1:36:59 AM	R14881
Methylene Chloride	ND	3.0		µg/L	1	11/19/2013 1:36:59 AM	R14881

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 2:55:00 PM

Lab ID: 1311561-006

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
n-Butylbenzene	ND	3.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
n-Propylbenzene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
sec-Butylbenzene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Styrene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
tert-Butylbenzene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
trans-1,2-DCE	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Trichlorofluoromethane	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Vinyl chloride	ND	1.0		µg/L	1	11/19/2013 1:36:59 AM	R14881
Xylenes, Total	ND	1.5		µg/L	1	11/19/2013 1:36:59 AM	R14881
Surr: 1,2-Dichloroethane-d4	98.3	70-130		%REC	1	11/19/2013 1:36:59 AM	R14881
Surr: 4-Bromofluorobenzene	92.3	70-130		%REC	1	11/19/2013 1:36:59 AM	R14881
Surr: Dibromofluoromethane	100	70-130		%REC	1	11/19/2013 1:36:59 AM	R14881
Surr: Toluene-d8	93.5	70-130		%REC	1	11/19/2013 1:36:59 AM	R14881

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 4:00:00 PM

Lab ID: 1311561-007

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	7.1	1.0		mg/L	1	11/15/2013 11:51:44 AM	10340
Surr: DNOP	136	70.1-140		%REC	1	11/15/2013 11:51:44 AM	10340
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.49	0.050		mg/L	1	11/16/2013 1:16:43 AM	R14837
Surr: BFB	797	80.4-118	S	%REC	1	11/16/2013 1:16:43 AM	R14837
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	2.3	0.50		mg/L	5	11/14/2013 3:11:18 AM	R14794
Chloride	1000	50		mg/L	100	11/15/2013 4:17:20 AM	R14833
Bromide	2.5	0.50		mg/L	5	11/14/2013 3:11:18 AM	R14794
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	11/14/2013 3:11:18 AM	R14794
Sulfate	97	2.5		mg/L	5	11/14/2013 3:11:18 AM	R14794
Nitrate+Nitrite as N	4.1	2.0		mg/L	10	11/20/2013 3:03:28 PM	R14961
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.51	0.0020		mg/L	1	11/21/2013 12:54:50 PM	R14978
Cadmium	ND	0.0020		mg/L	1	11/21/2013 12:54:50 PM	R14978
Calcium	250	5.0		mg/L	5	11/22/2013 3:03:55 PM	R15016
Chromium	ND	0.0060		mg/L	1	11/21/2013 12:54:50 PM	R14978
Copper	ND	0.0060		mg/L	1	11/21/2013 12:54:50 PM	R14978
Iron	11	1.0	*	mg/L	50	11/22/2013 3:05:37 PM	R15016
Magnesium	59	1.0		mg/L	1	11/21/2013 12:54:50 PM	R14978
Manganese	2.2	0.010	*	mg/L	5	11/22/2013 3:03:55 PM	R15016
Potassium	3.7	1.0		mg/L	1	11/21/2013 12:54:50 PM	R14978
Silver	ND	0.0050		mg/L	1	11/21/2013 12:54:50 PM	R14978
Sodium	1200	50		mg/L	50	11/21/2013 12:58:10 PM	R14978
Zinc	0.11	0.010		mg/L	1	11/22/2013 3:02:16 PM	R15016
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.51	0.0020		mg/L	1	11/20/2013 4:46:32 PM	10405
Cadmium	ND	0.0020		mg/L	1	11/20/2013 4:46:32 PM	10405
Chromium	ND	0.0060		mg/L	1	11/20/2013 4:46:32 PM	10405
Copper	0.015	0.0060		mg/L	1	11/20/2013 4:46:32 PM	10405
Iron	17	1.0	*	mg/L	50	11/21/2013 11:38:34 AM	10405
Manganese	2.2	0.010	*	mg/L	5	11/20/2013 4:48:11 PM	10405
Silver	ND	0.0050		mg/L	1	11/20/2013 4:46:32 PM	10405
Zinc	0.038	0.010		mg/L	1	11/20/2013 4:46:32 PM	10405
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.11	0.0050	*	mg/L	5	11/19/2013 3:36:26 PM	R14903
Lead	0.0037	0.0010		mg/L	1	11/19/2013 3:28:26 PM	R14903

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 4:00:00 PM

Lab ID: 1311561-007

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Selenium	0.015	0.0010		mg/L	1	11/19/2013 3:28:26 PM	R14903
Uranium	0.014	0.0010		mg/L	1	11/19/2013 3:28:26 PM	R14903
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.13	0.0050	*	mg/L	5	11/21/2013 2:19:59 PM	10405
Lead	0.017	0.0010	*	mg/L	1	11/21/2013 1:58:28 PM	10405
Selenium	0.014	0.0050		mg/L	5	11/21/2013 2:19:59 PM	10405
Uranium	0.015	0.0010		mg/L	1	11/21/2013 1:58:28 PM	10405
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	11/18/2013 3:00:02 PM	10366
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	8.0	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Toluene	2.3	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Ethylbenzene	3.8	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Methyl tert-butyl ether (MTBE)	39	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,2,4-Trimethylbenzene	5.2	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Naphthalene	ND	2.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1-Methylnaphthalene	4.7	4.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
2-Methylnaphthalene	ND	4.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Acetone	ND	10		µg/L	1	11/19/2013 2:40:18 AM	R14881
Bromobenzene	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Bromodichloromethane	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Bromoform	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Bromomethane	ND	3.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
2-Butanone	ND	10		µg/L	1	11/19/2013 2:40:18 AM	R14881
Carbon disulfide	ND	10		µg/L	1	11/19/2013 2:40:18 AM	R14881
Carbon Tetrachloride	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Chlorobenzene	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Chloroethane	ND	2.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Chloroform	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Chloromethane	ND	3.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
2-Chlorotoluene	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
4-Chlorotoluene	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
cis-1,2-DCE	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/19/2013 2:40:18 AM	R14881

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GW-1

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 4:00:00 PM

Lab ID: 1311561-007

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
Dibromochloromethane	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Dibromomethane	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,1-Dichloroethane	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,1-Dichloroethene	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,2-Dichloropropane	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,3-Dichloropropane	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
2,2-Dichloropropane	ND	2.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,1-Dichloropropene	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Hexachlorobutadiene	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
2-Hexanone	ND	10		µg/L	1	11/19/2013 2:40:18 AM	R14881
Isopropylbenzene	1.2	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
4-Isopropyltoluene	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
4-Methyl-2-pentanone	ND	10		µg/L	1	11/19/2013 2:40:18 AM	R14881
Methylene Chloride	ND	3.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
n-Butylbenzene	ND	3.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
n-Propylbenzene	1.8	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
sec-Butylbenzene	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Styrene	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
tert-Butylbenzene	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
trans-1,2-DCE	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Trichlorofluoromethane	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Vinyl chloride	ND	1.0		µg/L	1	11/19/2013 2:40:18 AM	R14881
Xylenes, Total	14	1.5		µg/L	1	11/19/2013 2:40:18 AM	R14881
Surr: 1,2-Dichloroethane-d4	95.4	70-130		%REC	1	11/19/2013 2:40:18 AM	R14881
Surr: 4-Bromofluorobenzene	89.0	70-130		%REC	1	11/19/2013 2:40:18 AM	R14881

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 4:00:00 PM

Lab ID: 1311561-007

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Surr: Dibromofluoromethane	101	70-130		%REC	1	11/19/2013 2:40:18 AM	R14881
Surr: Toluene-d8	98.7	70-130		%REC	1	11/19/2013 2:40:18 AM	R14881

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 4:45:00 PM

Lab ID: 1311561-008

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	23	1.0		mg/L	1	11/15/2013 12:22:44 PM	10340
Surr: DNOP	133	70.1-140		%REC	1	11/15/2013 12:22:44 PM	10340
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.81	0.050		mg/L	1	11/16/2013 1:45:14 AM	R14837
Surr: BFB	232	80.4-118	S	%REC	1	11/16/2013 1:45:14 AM	R14837
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	2.0	0.50		mg/L	5	11/14/2013 3:36:07 AM	R14794
Chloride	1600	100		mg/L	200	11/15/2013 4:29:44 AM	R14833
Bromide	4.3	0.50		mg/L	5	11/14/2013 3:36:07 AM	R14794
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	11/14/2013 3:36:07 AM	R14794
Sulfate	38	2.5		mg/L	5	11/14/2013 3:36:07 AM	R14794
Nitrate+Nitrite as N	5.4	2.0		mg/L	10	11/20/2013 3:15:53 PM	R14961
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.59	0.0020		mg/L	1	11/18/2013 3:59:35 PM	R14880
Cadmium	ND	0.0020		mg/L	1	11/18/2013 3:59:35 PM	R14880
Calcium	140	5.0		mg/L	5	11/18/2013 4:01:28 PM	R14880
Chromium	ND	0.0060		mg/L	1	11/18/2013 3:59:35 PM	R14880
Copper	ND	0.0060		mg/L	1	11/18/2013 3:59:35 PM	R14880
Iron	6.4	0.40	*	mg/L	20	11/22/2013 3:07:35 PM	R15016
Magnesium	26	1.0		mg/L	1	11/18/2013 3:59:35 PM	R14880
Manganese	2.1	0.010	*	mg/L	5	11/18/2013 4:01:28 PM	R14880
Potassium	4.8	1.0		mg/L	1	11/18/2013 3:59:35 PM	R14880
Silver	ND	0.025		mg/L	5	11/18/2013 4:01:28 PM	R14880
Sodium	1300	20		mg/L	20	11/21/2013 1:00:10 PM	R14978
Zinc	0.056	0.010		mg/L	1	11/18/2013 3:59:35 PM	R14880
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.69	0.0020		mg/L	1	11/20/2013 4:49:52 PM	10405
Cadmium	ND	0.0020		mg/L	1	11/20/2013 4:49:52 PM	10405
Chromium	0.012	0.0060		mg/L	1	11/20/2013 4:49:52 PM	10405
Copper	0.017	0.0060		mg/L	1	11/20/2013 4:49:52 PM	10405
Iron	12	1.0	*	mg/L	50	11/21/2013 11:40:36 AM	10405
Manganese	2.1	0.010	*	mg/L	5	11/20/2013 4:51:45 PM	10405
Silver	ND	0.0050		mg/L	1	11/20/2013 4:49:52 PM	10405
Zinc	0.063	0.010		mg/L	1	11/20/2013 4:49:52 PM	10405
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.013	0.0010	*	mg/L	1	11/19/2013 3:33:46 PM	R14903
Lead	0.0014	0.0010		mg/L	1	11/19/2013 3:33:46 PM	R14903

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 4:45:00 PM

Lab ID: 1311561-008

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Selenium	0.026	0.0010		mg/L	1	11/19/2013 3:33:46 PM	R14903
Uranium	0.042	0.0010	*	mg/L	1	11/19/2013 3:33:46 PM	R14903
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.013	0.0010	*	mg/L	1	11/21/2013 2:00:52 PM	10405
Lead	0.012	0.0010		mg/L	1	11/21/2013 2:00:52 PM	10405
Selenium	0.023	0.0010		mg/L	1	11/21/2013 2:00:52 PM	10405
Uranium	0.044	0.0010	*	mg/L	1	11/21/2013 2:00:52 PM	10405
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	11/18/2013 3:01:46 PM	10366
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Acenaphthylene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Aniline	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Anthracene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Azobenzene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Benz(a)anthracene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Benzo(a)pyrene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Benzo(b)fluoranthene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Benzo(k)fluoranthene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Benzoic acid	ND	40		µg/L	1	11/15/2013 3:56:47 PM	10357
Benzyl alcohol	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Butyl benzyl phthalate	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Carbazole	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
4-Chloroaniline	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
2-Chloronaphthalene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
2-Chlorophenol	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Chrysene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Di-n-butyl phthalate	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Di-n-octyl phthalate	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 4:45:00 PM

Lab ID: 1311561-008

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Dibenzofuran	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
1,2-Dichlorobenzene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
1,3-Dichlorobenzene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
1,4-Dichlorobenzene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Diethyl phthalate	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Dimethyl phthalate	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
2,4-Dichlorophenol	ND	20		µg/L	1	11/15/2013 3:56:47 PM	10357
2,4-Dimethylphenol	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/15/2013 3:56:47 PM	10357
2,4-Dinitrophenol	ND	20		µg/L	1	11/15/2013 3:56:47 PM	10357
2,4-Dinitrotoluene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
2,6-Dinitrotoluene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Fluoranthene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Fluorene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Hexachlorobenzene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Hexachlorobutadiene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Hexachloroethane	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Isophorone	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
1-Methylnaphthalene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
2-Methylnaphthalene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
2-Methylphenol	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
3+4-Methylphenol	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
N-Nitrosodimethylamine	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Naphthalene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
2-Nitroaniline	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
3-Nitroaniline	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
4-Nitroaniline	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Nitrobenzene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
2-Nitrophenol	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
4-Nitrophenol	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Pentachlorophenol	ND	20		µg/L	1	11/15/2013 3:56:47 PM	10357
Phenanthrene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Phenol	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Pyrene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 4:45:00 PM

Lab ID: 1311561-008

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Pyridine	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/15/2013 3:56:47 PM	10357
Surr: 2-Fluorophenol	48.2	22.7-98		%REC	1	11/15/2013 3:56:47 PM	10357
Surr: Phenol-d5	37.2	23.4-74.9		%REC	1	11/15/2013 3:56:47 PM	10357
Surr: 2,4,6-Tribromophenol	72.1	23.3-111		%REC	1	11/15/2013 3:56:47 PM	10357
Surr: Nitrobenzene-d5	76.5	36.8-111		%REC	1	11/15/2013 3:56:47 PM	10357
Surr: 2-Fluorobiphenyl	74.6	38.3-110		%REC	1	11/15/2013 3:56:47 PM	10357
Surr: 4-Terphenyl-d14	75.2	52.1-116		%REC	1	11/15/2013 3:56:47 PM	10357
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	89	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Toluene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Ethylbenzene	10	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Methyl tert-butyl ether (MTBE)	430	10		µg/L	10	11/19/2013 4:46:58 AM	R14881
1,2,4-Trimethylbenzene	1.6	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1,2-Dichloroethane (EDC)	1.0	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Naphthalene	ND	2.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1-Methylnaphthalene	14	4.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
2-Methylnaphthalene	ND	4.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Acetone	ND	10		µg/L	1	11/19/2013 5:18:40 AM	R14881
Bromobenzene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Bromodichloromethane	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Bromoform	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Bromomethane	ND	3.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
2-Butanone	ND	10		µg/L	1	11/19/2013 5:18:40 AM	R14881
Carbon disulfide	ND	10		µg/L	1	11/19/2013 5:18:40 AM	R14881
Carbon Tetrachloride	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Chlorobenzene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Chloroethane	ND	2.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Chloroform	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Chloromethane	ND	3.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
2-Chlorotoluene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
4-Chlorotoluene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
cis-1,2-DCE	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/19/2013 5:18:40 AM	R14881

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

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

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 4:45:00 PM

Lab ID: 1311561-008

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Dibromochloromethane	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Dibromomethane	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1,1-Dichloroethane	1.1	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1,1-Dichloroethene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1,2-Dichloropropane	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1,3-Dichloropropane	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
2,2-Dichloropropane	ND	2.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1,1-Dichloropropene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Hexachlorobutadiene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
2-Hexanone	ND	10		µg/L	1	11/19/2013 5:18:40 AM	R14881
Isopropylbenzene	2.5	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
4-Isopropyltoluene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
4-Methyl-2-pentanone	ND	10		µg/L	1	11/19/2013 5:18:40 AM	R14881
Methylene Chloride	ND	3.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
n-Butylbenzene	ND	3.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
n-Propylbenzene	2.5	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
sec-Butylbenzene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Styrene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
tert-Butylbenzene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
trans-1,2-DCE	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Trichlorofluoromethane	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Vinyl chloride	ND	1.0		µg/L	1	11/19/2013 5:18:40 AM	R14881
Xylenes, Total	2.9	1.5		µg/L	1	11/19/2013 5:18:40 AM	R14881
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	11/19/2013 5:18:40 AM	R14881
Surr: 4-Bromofluorobenzene	91.3	70-130		%REC	1	11/19/2013 5:18:40 AM	R14881

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 4:45:00 PM

Lab ID: 1311561-008

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: DJF	
Surr: Dibromofluoromethane	104	70-130		%REC	1	11/19/2013 5:18:40 AM	R14881
Surr: Toluene-d8	90.8	70-130		%REC	1	11/19/2013 5:18:40 AM	R14881

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 8:00:00 AM

Lab ID: 1311561-009

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Toluene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Ethylbenzene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Naphthalene	ND	2.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1-Methylnaphthalene	ND	4.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
2-Methylnaphthalene	ND	4.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Acetone	ND	10		µg/L	1	11/19/2013 6:22:20 AM	R14881
Bromobenzene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Bromodichloromethane	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Bromoform	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Bromomethane	ND	3.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
2-Butanone	ND	10		µg/L	1	11/19/2013 6:22:20 AM	R14881
Carbon disulfide	ND	10		µg/L	1	11/19/2013 6:22:20 AM	R14881
Carbon Tetrachloride	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Chlorobenzene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Chloroethane	ND	2.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Chloroform	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Chloromethane	ND	3.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
2-Chlorotoluene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
4-Chlorotoluene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
cis-1,2-DCE	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Dibromochloromethane	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Dibromomethane	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1,1-Dichloroethane	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1,1-Dichloroethene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1,2-Dichloropropane	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1,3-Dichloropropane	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
2,2-Dichloropropane	ND	2.0		µg/L	1	11/19/2013 6:22:20 AM	R14881

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2013 4TH Quarter

Collection Date: 11/11/2013 8:00:00 AM

Lab ID: 1311561-009

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Hexachlorobutadiene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
2-Hexanone	ND	10		µg/L	1	11/19/2013 6:22:20 AM	R14881
Isopropylbenzene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
4-Isopropyltoluene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
4-Methyl-2-pentanone	ND	10		µg/L	1	11/19/2013 6:22:20 AM	R14881
Methylene Chloride	ND	3.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
n-Butylbenzene	ND	3.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
n-Propylbenzene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
sec-Butylbenzene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Styrene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
tert-Butylbenzene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
trans-1,2-DCE	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Trichlorofluoromethane	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Vinyl chloride	ND	1.0		µg/L	1	11/19/2013 6:22:20 AM	R14881
Xylenes, Total	ND	1.5		µg/L	1	11/19/2013 6:22:20 AM	R14881
Surr: 1,2-Dichloroethane-d4	99.4	70-130		%REC	1	11/19/2013 6:22:20 AM	R14881
Surr: 4-Bromofluorobenzene	91.0	70-130		%REC	1	11/19/2013 6:22:20 AM	R14881
Surr: Dibromofluoromethane	99.6	70-130		%REC	1	11/19/2013 6:22:20 AM	R14881
Surr: Toluene-d8	99.5	70-130		%REC	1	11/19/2013 6:22:20 AM	R14881

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 4TH Quarter

Collection Date:

Lab ID: 1311561-010

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Toluene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Ethylbenzene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Naphthalene	ND	2.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
2-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Acetone	ND	10		µg/L	1	11/18/2013 7:48:31 PM	R14881
Bromobenzene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Bromodichloromethane	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Bromoform	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Bromomethane	ND	3.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
2-Butanone	ND	10		µg/L	1	11/18/2013 7:48:31 PM	R14881
Carbon disulfide	ND	10		µg/L	1	11/18/2013 7:48:31 PM	R14881
Carbon Tetrachloride	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Chlorobenzene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Chloroethane	ND	2.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Chloroform	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Chloromethane	ND	3.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
2-Chlorotoluene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
4-Chlorotoluene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
cis-1,2-DCE	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Dibromochloromethane	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Dibromomethane	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1,1-Dichloroethane	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1,1-Dichloroethene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1,2-Dichloropropane	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1,3-Dichloropropane	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
2,2-Dichloropropane	ND	2.0		µg/L	1	11/18/2013 7:48:31 PM	R14881

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311561

Date Reported: 12/6/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 4TH Quarter

Collection Date:

Lab ID: 1311561-010

Matrix: AQUEOUS

Received Date: 11/13/2013 1:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: DJF			
1,1-Dichloropropene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Hexachlorobutadiene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
2-Hexanone	ND	10		µg/L	1	11/18/2013 7:48:31 PM	R14881
Isopropylbenzene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
4-Isopropyltoluene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
4-Methyl-2-pentanone	ND	10		µg/L	1	11/18/2013 7:48:31 PM	R14881
Methylene Chloride	ND	3.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
n-Butylbenzene	ND	3.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
n-Propylbenzene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
sec-Butylbenzene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Styrene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
tert-Butylbenzene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
trans-1,2-DCE	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Trichlorofluoromethane	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Vinyl chloride	ND	1.0		µg/L	1	11/18/2013 7:48:31 PM	R14881
Xylenes, Total	ND	1.5		µg/L	1	11/18/2013 7:48:31 PM	R14881
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	11/18/2013 7:48:31 PM	R14881
Surr: 4-Bromofluorobenzene	92.2	70-130		%REC	1	11/18/2013 7:48:31 PM	R14881
Surr: Dibromofluoromethane	99.9	70-130		%REC	1	11/18/2013 7:48:31 PM	R14881
Surr: Toluene-d8	101	70-130		%REC	1	11/18/2013 7:48:31 PM	R14881

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Anatek Labs, Inc.

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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

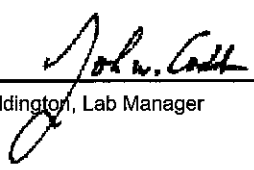
Batch #: 131115050
Project Name: 1311561

Analytical Results Report

Sample Number	131115050-001	Sampling Date	11/11/2013	Date/Time Received	11/15/2013 1:00 PM
Client Sample ID	1311561-008F / OAPIS-1	Sampling Time	4:45 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0765	mg/L	0.01	11/19/2013	CRW	EPA 335.4	

Authorized Signature


John Coddington, Lab Manager

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

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

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

Monday, November 25, 2013

Page 1 of 1

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R14880			RunNo: 14880					
Prep Date:		Analysis Date: 11/18/2013			SeqNo: 429000		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R14880		RunNo: 14880					
Prep Date:			Analysis Date: 11/18/2013		SeqNo: 429001		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Calcium	45	1.0	50.00	0	89.8	85	115			
Chromium	0.50	0.0060	0.5000	0	99.7	85	115			
Copper	0.49	0.0060	0.5000	0	97.5	85	115			
Iron	0.52	0.020	0.5000	0	105	85	115			
Magnesium	45	1.0	50.00	0	90.2	85	115			
Manganese	0.52	0.0020	0.5000	0	103	85	115			
Potassium	43	1.0	50.00	0	86.1	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			
Sodium	43	1.0	50.00	0	86.7	85	115			
Zinc	0.53	0.010	0.5000	0	106	85	115			

Sample ID	1311561-002DMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	OW-1		Batch ID: R14880		RunNo: 14880					
Prep Date:			Analysis Date: 11/18/2013		SeqNo: 429040		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.55	0.0020	0.5000	0.03821	102	70	130			
Cadmium	0.51	0.0020	0.5000	0	102	70	130			
Calcium	47	1.0	50.00	1.883	91.2	70	130			
Chromium	0.51	0.0060	0.5000	0	102	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	1311561-002DMS		SampType: MS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	OW-1		Batch ID: R14880			RunNo: 14880				
Prep Date:			Analysis Date: 11/18/2013			SeqNo: 429040		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.50	0.0060	0.5000	0	101	70	130			
Iron	0.54	0.020	0.5000	0.01516	105	70	130			
Magnesium	45	1.0	50.00	0.2076	89.4	70	130			
Manganese	0.53	0.0020	0.5000	0.007520	104	70	130			
Potassium	46	1.0	50.00	1.015	89.1	70	130			
Zinc	0.56	0.010	0.5000	0.02923	105	70	130			

Sample ID	1311561-002DMSD		SampType: MSD			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	OW-1		Batch ID: R14880			RunNo: 14880				
Prep Date:			Analysis Date: 11/18/2013			SeqNo: 429041		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.56	0.0020	0.5000	0.03821	105	70	130	2.09	20	
Cadmium	0.52	0.0020	0.5000	0	105	70	130	3.08	20	
Calcium	48	1.0	50.00	1.883	91.9	70	130	0.753	20	
Chromium	0.51	0.0060	0.5000	0	103	70	130	0.761	20	
Copper	0.52	0.0060	0.5000	0	103	70	130	2.48	20	
Iron	0.54	0.020	0.5000	0.01516	105	70	130	0.270	20	
Magnesium	45	1.0	50.00	0.2076	90.5	70	130	1.20	20	
Manganese	0.54	0.0020	0.5000	0.007520	107	70	130	2.26	20	
Potassium	46	1.0	50.00	1.015	90.4	70	130	1.42	20	
Zinc	0.57	0.010	0.5000	0.02923	108	70	130	2.54	20	

Sample ID	1311561-002DMS		SampType: MS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	OW-1		Batch ID: R14880			RunNo: 14880				
Prep Date:			Analysis Date: 11/18/2013			SeqNo: 429043		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	490	5.0	250.0	269.6	87.0	70	130			

Sample ID	1311561-002DMSD		SampType: MSD			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	OW-1		Batch ID: R14880			RunNo: 14880				
Prep Date:			Analysis Date: 11/18/2013			SeqNo: 429044		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	490	5.0	250.0	269.6	87.6	70	130	0.323	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R14978			RunNo: 14978					
Prep Date:		Analysis Date: 11/21/2013			SeqNo: 432290		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								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R14978		RunNo: 14978					
Prep Date:			Analysis Date: 11/21/2013		SeqNo: 432291		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Chromium	0.50	0.0060	0.5000	0	99.6	85	115			
Copper	0.49	0.0060	0.5000	0	97.5	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Potassium	49	1.0	50.00	0	98.0	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			
Sodium	50	1.0	50.00	0	99.2	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R14978			RunNo: 14978					
Prep Date:		Analysis Date: 11/21/2013			SeqNo: 432292		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								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	LCSW		Batch ID: R14978			RunNo: 14978				
Prep Date:	Analysis Date: 11/21/2013			SeqNo: 432293		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	102	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.51	0.0060	0.5000	0	102	85	115			
Copper	0.49	0.0060	0.5000	0	98.1	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Potassium	49	1.0	50.00	0	97.7	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Sodium	50	1.0	50.00	0	99.0	85	115			

Sample ID	1311561-002DMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	OW-1		Batch ID: R14978		RunNo: 14978					
Prep Date:			Analysis Date: 11/21/2013		SeqNo: 432332		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.091	0.0050	0.1000	0	90.5	70	130			

Sample ID	1311561-002DMSD			SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	OW-1		Batch ID:	R14978		RunNo:	14978				
Prep Date:			Analysis Date:	11/21/2013		SeqNo:	432333		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Silver	0.092	0.0050	0.1000	0	91.8	70	130	1.37	20		

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R15016			RunNo: 15016					
Prep Date:		Analysis Date: 11/22/2013			SeqNo: 433546		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Iron	ND	0.020								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R15016		RunNo: 15016					
Prep Date:			Analysis Date: 11/22/2013		SeqNo: 433547		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	48	1.0	50.00	0	95.2	85	115			
Iron	0.48	0.020	0.5000	0	96.5	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	LCSW		Batch ID: R15016			RunNo: 15016				
Prep Date:			Analysis Date: 11/22/2013			SeqNo: 433547		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	0.47	0.0020	0.5000	0	93.0	85	115			
Zinc	0.48	0.010	0.5000	0	96.6	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	MB-10405		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 10405		RunNo: 14938					
Prep Date:	11/19/2013		Analysis Date: 11/20/2013		SeqNo: 430850		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-10405		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 10405		RunNo: 14938					
Prep Date:	11/19/2013		Analysis Date: 11/20/2013		SeqNo: 430851		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	101	85	115			
Copper	0.50	0.0060	0.5000	0	99.7	85	115			
Iron	0.53	0.020	0.5000	0	106	85	115			
Manganese	0.52	0.0020	0.5000	0	103	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.52	0.010	0.5000	0	104	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R14903		RunNo: 14903					
Prep Date:			Analysis Date: 11/19/2013		SeqNo: 429856		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	98.2	85	115			
Lead	0.025	0.0010	0.02500	0	98.8	85	115			
Selenium	0.024	0.0010	0.02500	0	95.0	85	115			
Uranium	0.025	0.0010	0.02500	0	101	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R14903		RunNo: 14903					
Prep Date:			Analysis Date: 11/19/2013		SeqNo: 429857		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.5	85	115			
Lead	0.024	0.0010	0.02500	0	95.5	85	115			
Selenium	0.024	0.0010	0.02500	0	94.2	85	115			
Uranium	0.024	0.0010	0.02500	0	97.4	85	115			

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R14903		RunNo: 14903					
Prep Date:			Analysis Date: 11/19/2013		SeqNo: 429858		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R14903		RunNo: 14903					
Prep Date:			Analysis Date: 11/19/2013		SeqNo: 429859		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	1311561-001CLLMS			SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	OW-10			Batch ID:	10405		RunNo:	14975			
Prep Date:	11/19/2013			Analysis Date:	11/21/2013		SeqNo:	432184		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.082	0.0050	0.02500	0.05688	101	70	130				

Sample ID	1311561-001CLLMS		SampType: MSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	OW-10		Batch ID: 10405		RunNo: 14975					
Prep Date:	11/19/2013		Analysis Date: 11/21/2013		SeqNo: 432185		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0.001798	94.5	70	130			
Lead	0.026	0.0010	0.02500	0.0001603	105	70	130			
Selenium	0.032	0.0010	0.02500	0.01107	81.9	70	130			

Sample ID	1311561-001CLLMS			SampType:	MSDLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	OW-10		Batch ID:	10405		RunNo:	14975				
Prep Date:	11/19/2013		Analysis Date:	11/21/2013		SeqNo:	432186		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.083	0.0050	0.02500	0.05688	106	70	130	1.40	20		

Sample ID	1311561-001CLLMS		SampType: MSDLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	OW-10		Batch ID: 10405		RunNo: 14975					
Prep Date:	11/19/2013		Analysis Date: 11/21/2013		SeqNo: 432187		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.001798	96.4	70	130	1.86	20	
Lead	0.027	0.0010	0.02500	0.0001603	106	70	130	1.37	20	
Selenium	0.032	0.0010	0.02500	0.01107	85.4	70	130	2.69	20	

Sample ID	LLLCS-10405		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 10405		RunNo: 14975					
Prep Date:	11/19/2013		Analysis Date: 11/21/2013		SeqNo: 432219		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	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	95.9	85	115			
Uranium	0.026	0.0010	0.02500	0	102	85	115			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	MB-10405		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	PBW		Batch ID:	10405		RunNo:	14975			
Prep Date:	11/19/2013		Analysis Date:	11/21/2013		SeqNo:	432222		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	MB-10366	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	10366	RunNo:	14872					
Prep Date:	11/17/2013	Analysis Date:	11/18/2013	SeqNo:	428683	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-10366	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	10366	RunNo:	14872					
Prep Date:	11/17/2013	Analysis Date:	11/18/2013	SeqNo:	428684	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	100	80	120			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R14794		RunNo: 14794							
Prep Date:	Analysis Date: 11/13/2013		SeqNo: 426160		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R14794		RunNo: 14794							
Prep Date:	Analysis Date: 11/13/2013		SeqNo: 426161		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	93.0	90	110			
Chloride	4.9	0.50	5.000	0	97.4	90	110			
Bromide	2.5	0.10	2.500	0	99.9	90	110			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	93.4	90	110			
Sulfate	9.7	0.50	10.00	0	97.2	90	110			

Sample ID A6	SampType: CCV_6		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R14794		RunNo: 14794							
Prep Date:	Analysis Date: 11/13/2013		SeqNo: 426171		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.5	0.10	2.400	0	103	90	110			
Chloride	12	0.50	12.00	0	102	90	110			
Bromide	12	0.10	12.00	0	102	90	110			
Phosphorus, Orthophosphate (As P	12	0.50	12.00	0	101	90	110			
Sulfate	30	0.50	30.00	0	101	90	110			

Sample ID A4	SampType: CCV_4		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R14794		RunNo: 14794							
Prep Date:	Analysis Date: 11/13/2013		SeqNo: 426183		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.99	0.10	1.000	0	98.6	90	110			
Chloride	4.7	0.50	5.000	0	94.0	90	110			
Bromide	4.9	0.10	5.000	0	97.5	90	110			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	93.1	90	110			
Sulfate	12	0.50	12.50	0	94.0	90	110			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14794			RunNo: 14794						
Prep Date:	Analysis Date: 11/13/2013			SeqNo: 426195		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.5	0.10	2.400	0	103	90	110			
Chloride	12	0.50	12.00	0	101	90	110			
Bromide	12	0.10	12.00	0	101	90	110			
Phosphorus, Orthophosphate (As P	12	0.50	12.00	0	100	90	110			
Sulfate	31	0.50	30.00	0	102	90	110			

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14794			RunNo: 14794						
Prep Date:	Analysis Date: 11/14/2013			SeqNo: 426207		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.97	0.10	1.000	0	97.1	90	110			
Chloride	4.8	0.50	5.000	0	97.0	90	110			
Bromide	4.8	0.10	5.000	0	96.4	90	110			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	92.0	90	110			
Sulfate	12	0.50	12.50	0	92.9	90	110			

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14794			RunNo: 14794						
Prep Date:	Analysis Date: 11/14/2013			SeqNo: 426215		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.5	0.10	2.400	0	103	90	110			
Chloride	12	0.50	12.00	0	102	90	110			
Bromide	12	0.10	12.00	0	100	90	110			
Phosphorus, Orthophosphate (As P	12	0.50	12.00	0	100	90	110			
Sulfate	30	0.50	30.00	0	99.9	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R14833			RunNo: 14833						
Prep Date:	Analysis Date: 11/14/2013			SeqNo: 427352		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R14833		RunNo: 14833					
Prep Date:			Analysis Date: 11/14/2013		SeqNo: 427353		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	98.6	90	110			
Sulfate	9.9	0.50	10.00	0	98.7	90	110			

Sample ID	A4		SampType: CCV_4			TestCode: EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID: R14833			RunNo: 14833				
Prep Date:			Analysis Date: 11/14/2013			SeqNo: 427362		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.2	90	110			
Sulfate	12	0.50	12.50	0	93.9	90	110			

Sample ID	A5		SampType: CCV_5			TestCode: EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID: R14833			RunNo: 14833				
Prep Date:				Analysis Date: 11/14/2013		SeqNo: 427374		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	7.7	0.50	8.000	0	96.7	90	110			
Sulfate	19	0.50	20.00	0	96.7	90	110			

Sample ID	A6		SampType: CCV_6			TestCode: EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID: R14833			RunNo: 14833				
Prep Date:			Analysis Date: 11/14/2013			SeqNo: 427386		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	12	0.50	12.00	0	101	90	110			
Sulfate	30	0.50	30.00	0	101	90	110			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R14833			RunNo: 14833					
Prep Date:		Analysis Date: 11/14/2013			SeqNo: 427396		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R14833		RunNo: 14833					
Prep Date:			Analysis Date: 11/14/2013		SeqNo: 427397		Units: mg/L			
Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R14833		RunNo: 14833					
Prep Date:			Analysis Date: 11/14/2013		SeqNo: 427397		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.3	90	110			
Sulfate	9.7	0.50	10.00	0	97.1	90	110			

Sample ID	A4		SampType: CCV_4			TestCode: EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID: R14833			RunNo: 14833				
Prep Date:			Analysis Date: 11/14/2013			SeqNo: 427398		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.3	90	110			
Sulfate	12	0.50	12.50	0	93.9	90	110			

Sample ID	A6		SampType: CCV_6			TestCode: EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID: R14833			RunNo: 14833				
Prep Date:			Analysis Date: 11/15/2013			SeqNo: 427410		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	12	0.50	12.00	0	102	90	110			
Sulfate	30	0.50	30.00	0	102	90	110			

Sample ID	A4		SampType: CCV_4			TestCode: EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID: R14833			RunNo: 14833				
Prep Date:			Analysis Date: 11/15/2013			SeqNo: 427422		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.2	90	110			
Sulfate	12	0.50	12.50	0	93.5	90	110			

Sample ID	A6		SampType: CCV_6			TestCode: EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID: R14833			RunNo: 14833				
Prep Date:			Analysis Date: 11/15/2013			SeqNo: 427429		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	12	0.50	12.00	0	102	90	110			
Sulfate	30	0.50	30.00	0	101	90	110			

Sample ID	A4		SampType: CCV_4			TestCode: EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID: R14961			RunNo: 14961				
Prep Date:			Analysis Date: 11/20/2013			SeqNo: 431669		Units: mg/L		
Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID A4	SampType: CCV_4		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R14961		RunNo: 14961							
Prep Date:	Analysis Date: 11/20/2013		SeqNo: 431669		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	4.9	0.20	5.000	0	97.3	90	110			

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R14961		RunNo: 14961							
Prep Date:	Analysis Date: 11/20/2013		SeqNo: 431671		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: R14961		RunNo: 14961							
Prep Date:	Analysis Date: 11/20/2013		SeqNo: 431672		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	101	90	110			

Sample ID A5	SampType: CCV_5		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R14961		RunNo: 14961							
Prep Date:	Analysis Date: 11/20/2013		SeqNo: 431681		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	8.1	0.20	8.000	0	101	90	110			

Sample ID A6	SampType: CCV_6		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R14961		RunNo: 14961							
Prep Date:	Analysis Date: 11/20/2013		SeqNo: 431693		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	13	0.20	12.00	0	105	90	110			

Sample ID A4	SampType: CCV_4		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R14961		RunNo: 14961							
Prep Date:	Analysis Date: 11/20/2013		SeqNo: 431705		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	4.9	0.20	5.000	0	97.1	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID A5	SampType: CCV_5			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14961			RunNo: 14961						
Prep Date:	Analysis Date: 11/20/2013			SeqNo: 431717			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	7.2	0.20	8.000	0	90.5	90	110			

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14961			RunNo: 14961						
Prep Date:	Analysis Date: 11/21/2013			SeqNo: 431729			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	12	0.20	12.00	0	96.9	90	110			

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14961			RunNo: 14961						
Prep Date:	Analysis Date: 11/21/2013			SeqNo: 431741			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	4.7	0.20	5.000	0	93.1	90	110			

Sample ID A5	SampType: CCV_5			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14961			RunNo: 14961						
Prep Date:	Analysis Date: 11/21/2013			SeqNo: 431753			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	7.8	0.20	8.000	0	97.5	90	110			

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14961			RunNo: 14961						
Prep Date:	Analysis Date: 11/21/2013			SeqNo: 431761			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	12	0.20	12.00	0	101	90	110			

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14961			RunNo: 14961						
Prep Date:	Analysis Date: 11/21/2013			SeqNo: 431773			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	4.7	0.20	5.000	0	94.8	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	MB-10340		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 10340		RunNo: 14789					
Prep Date:	11/14/2013		Analysis Date: 11/14/2013		SeqNo: 426465		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Surr: DNOP	1.0		1.000		100	70.1	140			

Sample ID	LCS-10340		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 10340		RunNo: 14789					
Prep Date:	11/14/2013		Analysis Date: 11/14/2013		SeqNo: 426466		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.7	1.0	5.000	0	114	73.3	145			
Surr: DNOP	0.54		0.5000		107	70.1	140			

Sample ID	LCSD-10340		SampType: LCSD		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSS02		Batch ID: 10340		RunNo: 14789					
Prep Date:	11/14/2013		Analysis Date: 11/14/2013		SeqNo: 426643		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.1	1.0	5.000	0	103	73.3	145	10.2	20	
Surr: DNOP	0.48		0.5000		95.3	70.1	140	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	5ML RB		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW		Batch ID: R14824		RunNo: 14824					
Prep Date:			Analysis Date: 11/14/2013		SeqNo: 427203		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		93.1	80.4	118			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: R14824		RunNo: 14824					
Prep Date:			Analysis Date: 11/14/2013		SeqNo: 427204		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.49	0.050	0.5000	0	98.6	80	120			
Surr: BFB	20		20.00		99.4	80.4	118			

Sample ID	1311561-001AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	OW-10		Batch ID: R14824		RunNo: 14824					
Prep Date:			Analysis Date: 11/14/2013		SeqNo: 427215		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	0.05480	102	67.7	128			
Surr: BFB	21		20.00		107	80.4	118			

Sample ID	1311561-001AMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	OW-10		Batch ID: R14824		RunNo: 14824					
Prep Date:			Analysis Date: 11/14/2013		SeqNo: 427216		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.54	0.050	0.5000	0.05480	97.8	67.7	128	3.43	20	
Surr: BFB	21		20.00		107	80.4	118	0	0	

Sample ID	B14		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW		Batch ID: R14837		RunNo: 14837					
Prep Date:			Analysis Date: 11/15/2013		SeqNo: 427694		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		92.2	80.4	118			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: R14837		RunNo: 14837					
Prep Date:			Analysis Date: 11/15/2013		SeqNo: 427695		Units: mg/L			
Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R14837	RunNo:	14837					
Prep Date:		Analysis Date:	11/15/2013	SeqNo:	427695	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.54	0.050	0.5000	0	108	80	120			
Surr: BFB	20		20.00		99.6	80.4	118			

Sample ID	1311561-007AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	GWM-1	Batch ID:	R14837	RunNo:	14837					
Prep Date:		Analysis Date:	11/15/2013	SeqNo:	427697	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.91	0.050	0.5000	0.4866	84.0	67.7	128			
Surr: BFB	160		20.00		795	80.4	118			S

Sample ID	1311561-007AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	GWM-1	Batch ID:	R14837	RunNo:	14837					
Prep Date:		Analysis Date:	11/15/2013	SeqNo:	427698	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.83	0.050	0.5000	0.4866	69.4	67.7	128	8.37	20	
Surr: BFB	150		20.00		733	80.4	118	0	0	S

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R14881			RunNo: 14881					
Prep Date:		Analysis Date: 11/18/2013			SeqNo: 429091		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	5ml rb	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES						
Client ID:	PBW	Batch ID: R14881		RunNo: 14881						
Prep Date:		Analysis Date: 11/18/2013		SeqNo: 429091		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.9	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.6		10.00		96.2	70	130			

Sample ID	1311561-007ams	SampType: MS		TestCode: EPA Method 8260B: VOLATILES						
Client ID:	GWM-1	Batch ID: R14881		RunNo: 14881						
Prep Date:		Analysis Date: 11/19/2013		SeqNo: 429124		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	28	1.0	20.00	7.970	102	67.9	137			
Toluene	22	1.0	20.00	2.302	96.4	77	127			
Chlorobenzene	18	1.0	20.00	0	87.7	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	1311561-007ams		SampType: MS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	GWM-1		Batch ID: R14881		RunNo: 14881					
Prep Date:			Analysis Date: 11/19/2013		SeqNo: 429124		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	23	1.0	20.00	0	117	66.5	131			
Trichloroethene (TCE)	18	1.0	20.00	0	91.2	66.3	134			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.6	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.1	70	130			
Surr: Dibromofluoromethane	8.9		10.00		88.9	70	130			
Surr: Toluene-d8	9.6		10.00		96.2	70	130			

Sample ID	1311561-007amsd		SampType: MSD		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	GWM-1		Batch ID: R14881		RunNo: 14881					
Prep Date:			Analysis Date: 11/19/2013		SeqNo: 429125		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	29	1.0	20.00	7.970	107	67.9	137	3.17	20	
Toluene	21	1.0	20.00	2.302	95.9	77	127	0.464	20	
Chlorobenzene	18	1.0	20.00	0	87.7	70	130	0.0228	20	
1,1-Dichloroethene	24	1.0	20.00	0	118	66.5	131	0.867	20	
Trichloroethene (TCE)	19	1.0	20.00	0	96.0	66.3	134	5.13	20	
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.0		10.00		89.5	70	130	0	0	
Surr: Dibromofluoromethane	9.3		10.00		93.1	70	130	0	0	
Surr: Toluene-d8	9.4		10.00		94.1	70	130	0	0	

Sample ID	100ng lcs200ngacac			SampType: LCS	TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: R14881		RunNo: 14881					
Prep Date:			Analysis Date: 11/18/2013		SeqNo: 429174		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	109	70	130			
Toluene	22	1.0	20.00	0	108	82.2	124			
Chlorobenzene	20	1.0	20.00	0	98.2	70	130			
1,1-Dichloroethene	26	1.0	20.00	0	130	83.5	155			
Trichloroethene (TCE)	21	1.0	20.00	0	105	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		107	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		90.7	70	130			
Surr: Dibromofluoromethane	9.4		10.00		94.1	70	130			
Surr: Toluene-d8	10		10.00		99.7	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R14913			RunNo: 14913					
Prep Date:		Analysis Date: 11/19/2013			SeqNo: 430137		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.4	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID	100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES						
Client ID:	LCSW	Batch ID: R14913		RunNo: 14913						
Prep Date:		Analysis Date: 11/19/2013		SeqNo: 430139			Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.9	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		90.7	70	130			
Surr: Dibromofluoromethane	9.1		10.00		90.7	70	130			
Surr: Toluene-d8	9.5		10.00		94.7	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	mb-10357		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 10357		RunNo: 14847					
Prep Date:	11/15/2013		Analysis Date: 11/15/2013		SeqNo: 427864		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	40								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	mb-10357	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	10357	RunNo:	14847					
Prep Date:	11/15/2013	Analysis Date:	11/15/2013	SeqNo:	427864	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	110		200.0		54.7	22.7	98			
Surr: Phenol-d5	90		200.0		45.1	23.4	74.9			
Surr: 2,4,6-Tribromophenol	140		200.0		71.8	23.3	111			
Surr: Nitrobenzene-d5	76		100.0		75.7	36.8	111			
Surr: 2-Fluorobiphenyl	72		100.0		71.6	38.3	110			
Surr: 4-Terphenyl-d14	85		100.0		85.3	52.1	116			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311561

06-Dec-13

Client: Western Refining Southwest, Gallup

Project: 2013 4TH Quarter

Sample ID	lcs-10357		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 10357		RunNo: 14847					
Prep Date:	11/15/2013		Analysis Date: 11/15/2013		SeqNo: 427865		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	80	10	100.0	0	79.9	48	101			
4-Chloro-3-methylphenol	150	10	200.0	0	77.3	47.9	109			
2-Chlorophenol	150	10	200.0	0	73.0	40	105			
1,4-Dichlorobenzene	59	10	100.0	0	59.3	40.8	94.3			
2,4-Dinitrotoluene	74	10	100.0	0	74.5	28.3	131			
N-Nitrosodi-n-propylamine	77	10	100.0	0	76.8	46.2	119			
4-Nitrophenol	78	10	200.0	0	39.2	10.5	67.9			
Pentachlorophenol	120	20	200.0	0	61.3	22.4	81.1			
Phenol	97	10	200.0	0	48.5	21.4	72.9			
Pyrene	79	10	100.0	0	78.7	46.9	109			
1,2,4-Trichlorobenzene	57	10	100.0	0	56.7	43.1	98.4			
Surr: 2-Fluorophenol	110		200.0		56.4	22.7	98			
Surr: Phenol-d5	96		200.0		48.1	23.4	74.9			
Surr: 2,4,6-Tribromophenol	180		200.0		91.7	23.3	111			
Surr: Nitrobenzene-d5	74		100.0		74.4	36.8	111			
Surr: 2-Fluorobiphenyl	77		100.0		76.9	38.3	110			
Surr: 4-Terphenyl-d14	86		100.0		85.7	52.1	116			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1311561

RcptNo: 1

Received by/date:

AT

11/13/13

Logged By: Michelle Garcia

11/13/2013 1:15:00 PM

Michelle Garcia

Completed By: Michelle Garcia

11/13/2013 3:52:03 PM

Michelle Garcia

Reviewed By:

11/14/13

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☒

No ☐

Not Present ☐

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Client

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☒

11/14/13

9. Was preservative added to bottles?

Yes ☒

No ☒

NA ☐

SEE REMARKS

10. VOA vials have zero headspace?

Yes ☒

No ☐

No VOA Vials ☐

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

(If no, notify customer for authorization.)

of preserved bottles checked for pH: 20 1
(2 or > 10 unless noted)
Adjusted? YES
Checked by: [Signature]

Special Handling (if applicable)

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

Yes ☐

No ☐

NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

FOR METALS ANALYSIS: ADDED 1ML HNO₃ TO -004B, -005B, +008C, 2ML HNO₃ TO -007C, AND 0.4 ML HNO₃ TO -001B, -007D FOR ACCEPTABLE pH. HELD IN LOG IN FOR 24 HOURS AFTER PRESERVATION.

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			

11/14/13 @ 1030

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address: **NOTE: NEW ADDRESS**

92 GIANT CROSSING ROAD, GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP

☐ Other

☐ EDD (Type)

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

Sampler: C. JOHNSON

On Ice: ☒ Yes ☐ No

Sample Temperature: 18

Turn-Around Time:

X Standard ☐ Rush

Project Name:

2013 4TH Quarter

Project #:

OW/GWM/OAPIS WELLS

Project Manager:



www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	8260+MTBE	8015B	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	Major Cations/Anions	8270 + PHENOLS	CYANIDE	Air Bubbles (Y or N)
11/11/2013	830	H2O	OW-10			-001	X	X	X	X	X			
11/11/2013	930	H2O	OW-1			-002	X	X	X	X	X			
11/11/2013	1045	H2O	OW-29			-003	X	X	X	X	X			
11/11/2013	1130	H2O	OW-14			-004	X	X	X	X	X			
11/11/2013	1400	H2O	OW-13			-005	X	X	X	X	X			
11/11/2013	1455	H2O	OW-30			-006	X	X	X	X	X			
11/11/2013	1600	H2O	GWM-1			-007	X	X	X	X	X			
11/11/2013	1645	H2O	OAPIS-1			-008	X	X	X	X	X			
11/11/2013	800	H2O	FIELD BLANK			-009	X	X	X	X	X			
11/11/2013			TRIP BLANK			-010	X	X	X	X	X			

Date: 11/13/13	Time: 1315	Relinquished by:	Date: 11/13/13	Time: 1315	Received by:
Date:	Time:	Relinquished by:	Date:	Time:	Received by:

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



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

June 25, 2013

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 2013 SEMI-ANNUAL - PONDS

OrderNo.: 1305A91

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 15 sample(s) on 5/29/2013 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.

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 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 8:10:00 AM

Lab ID: 1305A91-001

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	19	10	*	mg/L	100	5/29/2013 8:01:51 PM	R10959
Chloride	62000	2500		mg/L	5E	6/12/2013 3:33:38 PM	R11289
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	5/29/2013 8:01:51 PM	R10959
Bromide	24	10		mg/L	100	5/29/2013 8:01:51 PM	R10959
Nitrogen, Nitrate (As N)	3.0	1.0		mg/L	10	5/29/2013 7:49:27 PM	R10959
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	5/29/2013 7:49:27 PM	R10959
Sulfate	8400	250		mg/L	500	6/12/2013 3:21:13 PM	R11289
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.19	0.010		mg/L	5	6/10/2013 4:53:36 PM	R11208
Cadmium	ND	0.010		mg/L	5	6/10/2013 4:53:36 PM	R11208
Chromium	ND	0.030		mg/L	5	6/10/2013 4:53:36 PM	R11208
Copper	ND	0.030		mg/L	5	6/10/2013 4:53:36 PM	R11208
Iron	ND	0.10		mg/L	5	6/10/2013 4:53:36 PM	R11208
Manganese	3.0	0.010	*	mg/L	5	6/10/2013 4:53:36 PM	R11208
Silver	ND	0.050		mg/L	10	6/7/2013 6:52:24 PM	R11180
Zinc	ND	0.050		mg/L	5	6/10/2013 4:53:36 PM	R11208
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.20	0.010		mg/L	5	6/3/2013 3:01:56 PM	7699
Cadmium	ND	0.010		mg/L	5	6/3/2013 3:01:56 PM	7699
Chromium	ND	0.030		mg/L	5	6/3/2013 3:01:56 PM	7699
Copper	ND	0.030		mg/L	5	6/3/2013 3:01:56 PM	7699
Iron	ND	0.10		mg/L	5	6/3/2013 3:01:56 PM	7699
Manganese	3.4	0.010	*	mg/L	5	6/3/2013 3:01:56 PM	7699
Silver	ND	0.025		mg/L	5	6/3/2013 3:01:56 PM	7699
Zinc	ND	0.050		mg/L	5	6/3/2013 3:01:56 PM	7699
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.070	0.050	*	mg/L	50	6/3/2013 2:25:42 PM	R11035
Lead	ND	0.020		mg/L	20	6/3/2013 1:52:48 PM	R11035
Selenium	0.091	0.050	*	mg/L	50	6/3/2013 2:25:42 PM	R11035
Uranium	ND	0.020		mg/L	20	6/3/2013 1:52:48 PM	R11035
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.095	0.050	*	mg/L	50	6/4/2013 1:58:55 PM	7699
Lead	ND	0.050		mg/L	50	6/20/2013 4:24:25 PM	7699
Selenium	ND	0.10	*	mg/L	100	6/5/2013 3:05:16 PM	7699
Uranium	ND	0.010		mg/L	10	6/4/2013 1:20:17 PM	7699
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/4/2013 4:57:31 PM	7734

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 8:10:00 AM

Lab ID: 1305A91-001

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Acenaphthylene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Aniline	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Anthracene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Azobenzene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Benz(a)anthracene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Benzo(a)pyrene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Benzo(b)fluoranthene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Benzo(g,h,i)perylene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Benzo(k)fluoranthene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Benzoic acid	ND	60		µg/L	1	6/3/2013 1:22:26 PM	7710
Benzyl alcohol	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Bis(2-chloroethoxy)methane	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Bis(2-chloroethyl)ether	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Bis(2-chloroisopropyl)ether	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Bis(2-ethylhexyl)phthalate	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
4-Bromophenyl phenyl ether	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Butyl benzyl phthalate	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Carbazole	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
4-Chloro-3-methylphenol	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
4-Chloroaniline	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
2-Chloronaphthalene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
2-Chlorophenol	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
4-Chlorophenyl phenyl ether	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Chrysene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Di-n-butyl phthalate	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Di-n-octyl phthalate	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Dibenz(a,h)anthracene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Dibenzofuran	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
1,2-Dichlorobenzene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
1,3-Dichlorobenzene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
1,4-Dichlorobenzene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
3,3'-Dichlorobenzidine	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Diethyl phthalate	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Dimethyl phthalate	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
2,4-Dichlorophenol	ND	60		µg/L	1	6/3/2013 1:22:26 PM	7710
2,4-Dimethylphenol	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
4,6-Dinitro-2-methylphenol	ND	60		µg/L	1	6/3/2013 1:22:26 PM	7710
2,4-Dinitrophenol	ND	60		µg/L	1	6/3/2013 1:22:26 PM	7710
2,4-Dinitrotoluene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 8:10:00 AM

Lab ID: 1305A91-001

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,6-Dinitrotoluene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Fluoranthene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Fluorene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Hexachlorobenzene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Hexachlorobutadiene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Hexachlorocyclopentadiene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Hexachloroethane	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Indeno(1,2,3-cd)pyrene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Isophorone	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
1-Methylnaphthalene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
2-Methylnaphthalene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
2-Methylphenol	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
3+4-Methylphenol	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
N-Nitrosodi-n-propylamine	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
N-Nitrosodimethylamine	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
N-Nitrosodiphenylamine	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Naphthalene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
2-Nitroaniline	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
3-Nitroaniline	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
4-Nitroaniline	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Nitrobenzene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
2-Nitrophenol	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
4-Nitrophenol	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Pentachlorophenol	ND	60		µg/L	1	6/3/2013 1:22:26 PM	7710
Phenanthrene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Phenol	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Pyrene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Pyridine	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
1,2,4-Trichlorobenzene	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
2,4,5-Trichlorophenol	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
2,4,6-Trichlorophenol	ND	30		µg/L	1	6/3/2013 1:22:26 PM	7710
Surr: 2,4,6-Tribromophenol	58.2	41.5-117		%REC	1	6/3/2013 1:22:26 PM	7710
Surr: 2-Fluorobiphenyl	58.9	29.1-112		%REC	1	6/3/2013 1:22:26 PM	7710
Surr: 2-Fluorophenol	48.7	11.9-98.6		%REC	1	6/3/2013 1:22:26 PM	7710
Surr: 4-Terphenyl-d14	53.2	46-111		%REC	1	6/3/2013 1:22:26 PM	7710
Surr: Nitrobenzene-d5	71.8	34.9-112		%REC	1	6/3/2013 1:22:26 PM	7710
Surr: Phenol-d5	47.2	17.5-88.3		%REC	1	6/3/2013 1:22:26 PM	7710
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
Toluene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 8:10:00 AM

Lab ID: 1305A91-001

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Ethylbenzene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
Naphthalene	ND	20		µg/L	10	6/5/2013 11:58:42 AM	R11111
1-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 11:58:42 AM	R11111
2-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 11:58:42 AM	R11111
Acetone	ND	100		µg/L	10	6/5/2013 11:58:42 AM	R11111
Bromobenzene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
Bromodichloromethane	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
Bromoform	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
Bromomethane	ND	30		µg/L	10	6/5/2013 11:58:42 AM	R11111
2-Butanone	ND	100		µg/L	10	6/5/2013 11:58:42 AM	R11111
Carbon disulfide	ND	100		µg/L	10	6/5/2013 11:58:42 AM	R11111
Carbon Tetrachloride	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
Chlorobenzene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
Chloroethane	ND	20		µg/L	10	6/5/2013 11:58:42 AM	R11111
Chloroform	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
Chloromethane	ND	30		µg/L	10	6/5/2013 11:58:42 AM	R11111
2-Chlorotoluene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
4-Chlorotoluene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
cis-1,2-DCE	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/5/2013 11:58:42 AM	R11111
Dibromochloromethane	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
Dibromomethane	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,2-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,3-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,4-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
Dichlorodifluoromethane	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,1-Dichloroethane	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,1-Dichloroethene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,2-Dichloropropane	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,3-Dichloropropane	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
2,2-Dichloropropane	ND	20		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,1-Dichloropropene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
Hexachlorobutadiene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
2-Hexanone	ND	100		µg/L	10	6/5/2013 11:58:42 AM	R11111

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 8:10:00 AM

Lab ID: 1305A91-001

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Isopropylbenzene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
4-Isopropyltoluene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
4-Methyl-2-pentanone	ND	100		µg/L	10	6/5/2013 11:58:42 AM	R11111
Methylene Chloride	ND	30		µg/L	10	6/5/2013 11:58:42 AM	R11111
n-Butylbenzene	ND	30		µg/L	10	6/5/2013 11:58:42 AM	R11111
n-Propylbenzene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
sec-Butylbenzene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
Styrene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
tert-Butylbenzene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/5/2013 11:58:42 AM	R11111
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
trans-1,2-DCE	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,1,1-Trichloroethane	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,1,2-Trichloroethane	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
Trichloroethene (TCE)	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
Trichlorofluoromethane	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
1,2,3-Trichloropropane	ND	20		µg/L	10	6/5/2013 11:58:42 AM	R11111
Vinyl chloride	ND	10		µg/L	10	6/5/2013 11:58:42 AM	R11111
Xylenes, Total	ND	15		µg/L	10	6/5/2013 11:58:42 AM	R11111
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	10	6/5/2013 11:58:42 AM	R11111
Surr: 4-Bromofluorobenzene	101	69.5-130		%REC	10	6/5/2013 11:58:42 AM	R11111
Surr: Dibromofluoromethane	106	70-130		%REC	10	6/5/2013 11:58:42 AM	R11111
Surr: Toluene-d8	101	70-130		%REC	10	6/5/2013 11:58:42 AM	R11111
SM2510B: SPECIFIC CONDUCTANCE				Analyst: JML			
Conductivity	200000	0.50		µmhos/cm	50	5/31/2013 9:01:35 PM	R11023
SM4500-H+B: PH				Analyst: JML			
pH	7.54	1.68	H	pH units	1	5/31/2013 1:04:04 PM	R11023

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 8:25:00 AM

Lab ID: 1305A91-002

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	29	10	*	mg/L	100	5/29/2013 8:26:40 PM	R10959
Chloride	47000	2500		mg/L	5E	6/12/2013 3:58:27 PM	R11289
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	5/29/2013 8:26:40 PM	R10959
Bromide	19	1.0		mg/L	10	5/29/2013 8:14:16 PM	R10959
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	5/29/2013 8:14:16 PM	R10959
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	5/29/2013 8:14:16 PM	R10959
Sulfate	8600	250		mg/L	500	6/12/2013 3:46:02 PM	R11289
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.12	0.010		mg/L	5	6/7/2013 5:53:56 PM	R11180
Cadmium	ND	0.010		mg/L	5	6/7/2013 5:53:56 PM	R11180
Chromium	ND	0.030		mg/L	5	6/7/2013 5:53:56 PM	R11180
Copper	ND	0.030		mg/L	5	6/10/2013 4:59:23 PM	R11208
Iron	ND	0.10		mg/L	5	6/10/2013 4:59:23 PM	R11208
Manganese	3.0	0.010	*	mg/L	5	6/7/2013 5:53:56 PM	R11180
Silver	ND	0.025		mg/L	5	6/7/2013 5:53:56 PM	R11180
Zinc	ND	0.050		mg/L	5	6/7/2013 5:53:56 PM	R11180
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.13	0.010		mg/L	5	6/3/2013 3:07:25 PM	7699
Cadmium	ND	0.010		mg/L	5	6/3/2013 3:07:25 PM	7699
Chromium	ND	0.030		mg/L	5	6/3/2013 3:07:25 PM	7699
Copper	ND	0.030		mg/L	5	6/3/2013 3:07:25 PM	7699
Iron	0.16	0.10		mg/L	5	6/3/2013 3:07:25 PM	7699
Manganese	4.0	0.010	*	mg/L	5	6/3/2013 3:07:25 PM	7699
Silver	ND	0.025		mg/L	5	6/3/2013 3:07:25 PM	7699
Zinc	ND	0.050		mg/L	5	6/3/2013 3:07:25 PM	7699
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.11	0.10	*	mg/L	100	6/3/2013 12:34:37 PM	R11035
Lead	ND	0.020		mg/L	20	6/3/2013 1:55:08 PM	R11035
Selenium	0.088	0.050	*	mg/L	50	6/3/2013 2:28:03 PM	R11035
Uranium	ND	0.020		mg/L	20	6/3/2013 1:55:08 PM	R11035
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.12	0.050	*	mg/L	50	6/4/2013 2:00:51 PM	7699
Lead	ND	0.020		mg/L	20	6/20/2013 4:19:33 PM	7699
Selenium	ND	0.10	*	mg/L	100	6/5/2013 3:07:12 PM	7699
Uranium	ND	0.010		mg/L	10	6/4/2013 1:22:13 PM	7699
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.0010		mg/L	5	6/11/2013 3:46:57 PM	7853

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 8:25:00 AM

Lab ID: 1305A91-002

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Acenaphthylene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Aniline	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Anthracene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Azobenzene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Benz(a)anthracene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Benzo(a)pyrene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Benzo(b)fluoranthene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Benzo(k)fluoranthene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Benzoic acid	ND	20		µg/L	1	6/3/2013 2:24:45 PM	7710
Benzyl alcohol	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Butyl benzyl phthalate	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Carbazole	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
4-Chloroaniline	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
2-Chloronaphthalene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
2-Chlorophenol	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Chrysene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Di-n-butyl phthalate	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Di-n-octyl phthalate	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Dibenzofuran	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
1,2-Dichlorobenzene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
1,3-Dichlorobenzene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
1,4-Dichlorobenzene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Diethyl phthalate	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Dimethyl phthalate	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
2,4-Dichlorophenol	ND	20		µg/L	1	6/3/2013 2:24:45 PM	7710
2,4-Dimethylphenol	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/3/2013 2:24:45 PM	7710
2,4-Dinitrophenol	ND	20		µg/L	1	6/3/2013 2:24:45 PM	7710
2,4-Dinitrotoluene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 8:25:00 AM

Lab ID: 1305A91-002

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,6-Dinitrotoluene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Fluoranthene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Fluorene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Hexachlorobenzene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Hexachlorobutadiene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Hexachloroethane	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Isophorone	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
1-Methylnaphthalene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
2-Methylnaphthalene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
2-Methylphenol	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
3+4-Methylphenol	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
N-Nitrosodimethylamine	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Naphthalene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
2-Nitroaniline	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
3-Nitroaniline	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
4-Nitroaniline	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Nitrobenzene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
2-Nitrophenol	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
4-Nitrophenol	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Pentachlorophenol	ND	20		µg/L	1	6/3/2013 2:24:45 PM	7710
Phenanthrene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Phenol	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Pyrene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Pyridine	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/3/2013 2:24:45 PM	7710
Surr: 2,4,6-Tribromophenol	33.0	41.5-117	S	%REC	1	6/3/2013 2:24:45 PM	7710
Surr: 2-Fluorobiphenyl	50.3	29.1-112		%REC	1	6/3/2013 2:24:45 PM	7710
Surr: 2-Fluorophenol	32.8	11.9-98.6		%REC	1	6/3/2013 2:24:45 PM	7710
Surr: 4-Terphenyl-d14	56.1	46-111		%REC	1	6/3/2013 2:24:45 PM	7710
Surr: Nitrobenzene-d5	56.0	34.9-112		%REC	1	6/3/2013 2:24:45 PM	7710
Surr: Phenol-d5	37.5	17.5-88.3		%REC	1	6/3/2013 2:24:45 PM	7710
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
Toluene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 8:25:00 AM

Lab ID: 1305A91-002

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: CWS		
Ethylbenzene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
Naphthalene	ND	20		µg/L	10	6/5/2013 1:24:53 PM	R11111
1-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 1:24:53 PM	R11111
2-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 1:24:53 PM	R11111
Acetone	ND	100		µg/L	10	6/5/2013 1:24:53 PM	R11111
Bromobenzene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
Bromodichloromethane	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
Bromoform	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
Bromomethane	ND	30		µg/L	10	6/5/2013 1:24:53 PM	R11111
2-Butanone	ND	100		µg/L	10	6/5/2013 1:24:53 PM	R11111
Carbon disulfide	ND	100		µg/L	10	6/5/2013 1:24:53 PM	R11111
Carbon Tetrachloride	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
Chlorobenzene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
Chloroethane	ND	20		µg/L	10	6/5/2013 1:24:53 PM	R11111
Chloroform	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
Chloromethane	ND	30		µg/L	10	6/5/2013 1:24:53 PM	R11111
2-Chlorotoluene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
4-Chlorotoluene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
cis-1,2-DCE	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/5/2013 1:24:53 PM	R11111
Dibromochloromethane	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
Dibromomethane	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,2-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,3-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,4-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
Dichlorodifluoromethane	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,1-Dichloroethane	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,1-Dichloroethene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,2-Dichloropropane	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,3-Dichloropropane	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
2,2-Dichloropropane	ND	20		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,1-Dichloropropene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
Hexachlorobutadiene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
2-Hexanone	ND	100		µg/L	10	6/5/2013 1:24:53 PM	R11111

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 8:25:00 AM

Lab ID: 1305A91-002

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Isopropylbenzene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
4-Isopropyltoluene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
4-Methyl-2-pentanone	ND	100		µg/L	10	6/5/2013 1:24:53 PM	R11111
Methylene Chloride	ND	30		µg/L	10	6/5/2013 1:24:53 PM	R11111
n-Butylbenzene	ND	30		µg/L	10	6/5/2013 1:24:53 PM	R11111
n-Propylbenzene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
sec-Butylbenzene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
Styrene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
tert-Butylbenzene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/5/2013 1:24:53 PM	R11111
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
trans-1,2-DCE	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,1,1-Trichloroethane	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,1,2-Trichloroethane	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
Trichloroethene (TCE)	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
Trichlorofluoromethane	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
1,2,3-Trichloropropane	ND	20		µg/L	10	6/5/2013 1:24:53 PM	R11111
Vinyl chloride	ND	10		µg/L	10	6/5/2013 1:24:53 PM	R11111
Xylenes, Total	ND	15		µg/L	10	6/5/2013 1:24:53 PM	R11111
Surr: 1,2-Dichloroethane-d4	97.8	70-130		%REC	10	6/5/2013 1:24:53 PM	R11111
Surr: 4-Bromofluorobenzene	97.9	69.5-130		%REC	10	6/5/2013 1:24:53 PM	R11111
Surr: Dibromofluoromethane	105	70-130		%REC	10	6/5/2013 1:24:53 PM	R11111
Surr: Toluene-d8	100	70-130		%REC	10	6/5/2013 1:24:53 PM	R11111
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JML
Conductivity	170000	0.50		µmhos/cm	50	5/31/2013 9:05:40 PM	R11023
SM4500-H+B: PH							Analyst: JML
pH	7.59	1.68	H	pH units	1	5/31/2013 1:13:51 PM	R11023

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 8:40:00 AM

Lab ID: 1305A91-003

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	28	10	*	mg/L	100	5/29/2013 8:51:29 PM	R10959
Chloride	55000	2500		mg/L	5E	6/12/2013 4:23:16 PM	R11289
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	5/29/2013 8:51:29 PM	R10959
Bromide	30	10		mg/L	100	5/29/2013 8:51:29 PM	R10959
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	5/29/2013 8:39:05 PM	R10959
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	5/29/2013 8:39:05 PM	R10959
Sulfate	11000	250		mg/L	500	6/12/2013 4:10:51 PM	R11289
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.11	0.010		mg/L	5	6/7/2013 5:58:13 PM	R11180
Cadmium	ND	0.010		mg/L	5	6/7/2013 5:58:13 PM	R11180
Chromium	ND	0.030		mg/L	5	6/7/2013 5:58:13 PM	R11180
Copper	ND	0.030		mg/L	5	6/10/2013 5:02:13 PM	R11208
Iron	ND	0.10		mg/L	5	6/10/2013 5:02:13 PM	R11208
Manganese	2.9	0.010	*	mg/L	5	6/7/2013 5:58:13 PM	R11180
Silver	ND	0.025		mg/L	5	6/7/2013 5:58:13 PM	R11180
Zinc	ND	0.050		mg/L	5	6/7/2013 5:58:13 PM	R11180
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.11	0.010		mg/L	5	6/3/2013 3:12:52 PM	7699
Cadmium	ND	0.010		mg/L	5	6/3/2013 3:12:52 PM	7699
Chromium	ND	0.030		mg/L	5	6/3/2013 3:12:52 PM	7699
Copper	ND	0.030		mg/L	5	6/3/2013 3:12:52 PM	7699
Iron	0.14	0.10		mg/L	5	6/3/2013 3:12:52 PM	7699
Manganese	3.1	0.010	*	mg/L	5	6/3/2013 3:12:52 PM	7699
Silver	ND	0.025		mg/L	5	6/3/2013 3:12:52 PM	7699
Zinc	ND	0.050		mg/L	5	6/3/2013 3:12:52 PM	7699
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.11	0.10	*	mg/L	100	6/3/2013 12:41:43 PM	R11035
Lead	ND	0.020		mg/L	20	6/3/2013 1:57:29 PM	R11035
Selenium	0.11	0.10	*	mg/L	100	6/3/2013 12:41:43 PM	R11035
Uranium	ND	0.020		mg/L	20	6/3/2013 1:57:29 PM	R11035
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.13	0.050	*	mg/L	50	6/4/2013 2:02:47 PM	7699
Lead	ND	0.050		mg/L	50	6/20/2013 4:26:51 PM	7699
Selenium	0.10	0.10	*	mg/L	100	6/5/2013 3:09:08 PM	7699
Uranium	ND	0.010		mg/L	10	6/4/2013 1:24:08 PM	7699
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/11/2013 3:05:28 PM	7853

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 8:40:00 AM

Lab ID: 1305A91-003

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Acenaphthylene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Aniline	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Anthracene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Azobenzene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Benz(a)anthracene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Benzo(a)pyrene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Benzo(b)fluoranthene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Benzo(g,h,i)perylene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Benzo(k)fluoranthene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Benzoic acid	ND	60		µg/L	1	6/3/2013 2:56:01 PM	7710
Benzyl alcohol	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Bis(2-chloroethoxy)methane	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Bis(2-chloroethyl)ether	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Bis(2-chloroisopropyl)ether	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Bis(2-ethylhexyl)phthalate	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
4-Bromophenyl phenyl ether	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Butyl benzyl phthalate	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Carbazole	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
4-Chloro-3-methylphenol	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
4-Chloroaniline	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
2-Chloronaphthalene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
2-Chlorophenol	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
4-Chlorophenyl phenyl ether	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Chrysene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Di-n-butyl phthalate	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Di-n-octyl phthalate	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Dibenz(a,h)anthracene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Dibenzofuran	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
1,2-Dichlorobenzene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
1,3-Dichlorobenzene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
1,4-Dichlorobenzene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
3,3'-Dichlorobenzidine	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Diethyl phthalate	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Dimethyl phthalate	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
2,4-Dichlorophenol	ND	60		µg/L	1	6/3/2013 2:56:01 PM	7710
2,4-Dimethylphenol	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
4,6-Dinitro-2-methylphenol	ND	60		µg/L	1	6/3/2013 2:56:01 PM	7710
2,4-Dinitrophenol	ND	60		µg/L	1	6/3/2013 2:56:01 PM	7710
2,4-Dinitrotoluene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 8:40:00 AM

Lab ID: 1305A91-003

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,6-Dinitrotoluene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Fluoranthene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Fluorene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Hexachlorobenzene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Hexachlorobutadiene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Hexachlorocyclopentadiene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Hexachloroethane	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Indeno(1,2,3-cd)pyrene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Isophorone	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
1-Methylnaphthalene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
2-Methylnaphthalene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
2-Methylphenol	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
3+4-Methylphenol	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
N-Nitrosodi-n-propylamine	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
N-Nitrosodimethylamine	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
N-Nitrosodiphenylamine	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Naphthalene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
2-Nitroaniline	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
3-Nitroaniline	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
4-Nitroaniline	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Nitrobenzene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
2-Nitrophenol	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
4-Nitrophenol	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Pentachlorophenol	ND	60		µg/L	1	6/3/2013 2:56:01 PM	7710
Phenanthrene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Phenol	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Pyrene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Pyridine	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
1,2,4-Trichlorobenzene	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
2,4,5-Trichlorophenol	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
2,4,6-Trichlorophenol	ND	30		µg/L	1	6/3/2013 2:56:01 PM	7710
Surr: 2,4,6-Tribromophenol	56.9	41.5-117		%REC	1	6/3/2013 2:56:01 PM	7710
Surr: 2-Fluorobiphenyl	66.1	29.1-112		%REC	1	6/3/2013 2:56:01 PM	7710
Surr: 2-Fluorophenol	49.8	11.9-98.6		%REC	1	6/3/2013 2:56:01 PM	7710
Surr: 4-Terphenyl-d14	57.2	46-111		%REC	1	6/3/2013 2:56:01 PM	7710
Surr: Nitrobenzene-d5	76.1	34.9-112		%REC	1	6/3/2013 2:56:01 PM	7710
Surr: Phenol-d5	47.6	17.5-88.3		%REC	1	6/3/2013 2:56:01 PM	7710
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
Toluene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 8:40:00 AM

Lab ID: 1305A91-003

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Ethylbenzene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
Naphthalene	ND	20		µg/L	10	6/5/2013 1:53:35 PM	R11111
1-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 1:53:35 PM	R11111
2-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 1:53:35 PM	R11111
Acetone	ND	100		µg/L	10	6/5/2013 1:53:35 PM	R11111
Bromobenzene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
Bromodichloromethane	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
Bromoform	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
Bromomethane	ND	30		µg/L	10	6/5/2013 1:53:35 PM	R11111
2-Butanone	ND	100		µg/L	10	6/5/2013 1:53:35 PM	R11111
Carbon disulfide	ND	100		µg/L	10	6/5/2013 1:53:35 PM	R11111
Carbon Tetrachloride	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
Chlorobenzene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
Chloroethane	ND	20		µg/L	10	6/5/2013 1:53:35 PM	R11111
Chloroform	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
Chloromethane	ND	30		µg/L	10	6/5/2013 1:53:35 PM	R11111
2-Chlorotoluene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
4-Chlorotoluene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
cis-1,2-DCE	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/5/2013 1:53:35 PM	R11111
Dibromochloromethane	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
Dibromomethane	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,2-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,3-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,4-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
Dichlorodifluoromethane	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,1-Dichloroethane	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,1-Dichloroethene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,2-Dichloropropane	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,3-Dichloropropane	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
2,2-Dichloropropane	ND	20		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,1-Dichloropropene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
Hexachlorobutadiene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
2-Hexanone	ND	100		µg/L	10	6/5/2013 1:53:35 PM	R11111

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 8:40:00 AM

Lab ID: 1305A91-003

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Isopropylbenzene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
4-Isopropyltoluene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
4-Methyl-2-pentanone	ND	100		µg/L	10	6/5/2013 1:53:35 PM	R11111
Methylene Chloride	ND	30		µg/L	10	6/5/2013 1:53:35 PM	R11111
n-Butylbenzene	ND	30		µg/L	10	6/5/2013 1:53:35 PM	R11111
n-Propylbenzene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
sec-Butylbenzene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
Styrene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
tert-Butylbenzene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/5/2013 1:53:35 PM	R11111
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
trans-1,2-DCE	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,1,1-Trichloroethane	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,1,2-Trichloroethane	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
Trichloroethene (TCE)	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
Trichlorofluoromethane	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
1,2,3-Trichloropropane	ND	20		µg/L	10	6/5/2013 1:53:35 PM	R11111
Vinyl chloride	ND	10		µg/L	10	6/5/2013 1:53:35 PM	R11111
Xylenes, Total	ND	15		µg/L	10	6/5/2013 1:53:35 PM	R11111
Surr: 1,2-Dichloroethane-d4	99.0	70-130		%REC	10	6/5/2013 1:53:35 PM	R11111
Surr: 4-Bromofluorobenzene	97.0	69.5-130		%REC	10	6/5/2013 1:53:35 PM	R11111
Surr: Dibromofluoromethane	103	70-130		%REC	10	6/5/2013 1:53:35 PM	R11111
Surr: Toluene-d8	105	70-130		%REC	10	6/5/2013 1:53:35 PM	R11111
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JML
Conductivity	190000	0.50		µmhos/cm	50	5/31/2013 9:08:40 PM	R11023
SM4500-H+B: PH							Analyst: JML
pH	7.61	1.68	H	pH units	1	5/31/2013 1:16:43 PM	R11023

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 9:15:00 AM

Lab ID: 1305A91-004

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	23	10	*	mg/L	100	5/29/2013 9:41:08 PM	R10959
Chloride	8900	500		mg/L	1E	5/31/2013 10:57:05 PM	R11032
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	5/29/2013 9:41:08 PM	R10959
Bromide	5.7	1.0		mg/L	10	5/29/2013 9:28:43 PM	R10959
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	5/29/2013 9:28:43 PM	R10959
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	5/29/2013 9:28:43 PM	R10959
Sulfate	4000	50		mg/L	100	5/29/2013 9:41:08 PM	R10959
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.068	0.010		mg/L	5	6/7/2013 3:59:34 PM	R11180
Cadmium	ND	0.010		mg/L	5	6/7/2013 3:59:34 PM	R11180
Chromium	ND	0.030		mg/L	5	6/7/2013 3:59:34 PM	R11180
Copper	ND	0.030		mg/L	5	6/10/2013 5:05:05 PM	R11208
Iron	ND	0.10		mg/L	5	6/10/2013 5:05:05 PM	R11208
Manganese	0.48	0.010	*	mg/L	5	6/7/2013 3:59:34 PM	R11180
Silver	ND	0.025		mg/L	5	6/7/2013 3:59:34 PM	R11180
Zinc	ND	0.050		mg/L	5	6/7/2013 3:59:34 PM	R11180
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.064	0.0020		mg/L	1	6/3/2013 3:15:44 PM	7699
Cadmium	ND	0.0020		mg/L	1	6/3/2013 3:15:44 PM	7699
Chromium	0.010	0.0060		mg/L	1	6/3/2013 3:15:44 PM	7699
Copper	ND	0.0060		mg/L	1	6/3/2013 3:15:44 PM	7699
Iron	0.12	0.020		mg/L	1	6/3/2013 3:15:44 PM	7699
Manganese	0.44	0.0020	*	mg/L	1	6/3/2013 3:15:44 PM	7699
Silver	ND	0.025		mg/L	5	6/3/2013 3:18:34 PM	7699
Zinc	ND	0.010		mg/L	1	6/3/2013 3:15:44 PM	7699
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.040	0.020	*	mg/L	20	6/3/2013 2:32:44 PM	R11035
Lead	ND	0.010		mg/L	10	6/3/2013 1:59:50 PM	R11035
Selenium	0.022	0.020		mg/L	20	6/3/2013 2:32:44 PM	R11035
Uranium	ND	0.010		mg/L	10	6/3/2013 1:59:50 PM	R11035
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.042	0.010	*	mg/L	10	6/4/2013 1:33:52 PM	7699
Lead	ND	0.010		mg/L	10	6/20/2013 3:57:34 PM	7699
Selenium	ND	0.050		mg/L	50	6/5/2013 3:11:03 PM	7699
Uranium	ND	0.0050		mg/L	5	6/4/2013 1:35:47 PM	7699
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/11/2013 3:07:15 PM	7853

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 9:15:00 AM

Lab ID: 1305A91-004

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Acenaphthylene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Aniline	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Anthracene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Azobenzene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Benz(a)anthracene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Benzo(a)pyrene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Benzo(b)fluoranthene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Benzo(g,h,i)perylene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Benzo(k)fluoranthene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Benzoic acid	ND	40		µg/L	1	6/3/2013 6:02:33 PM	7710
Benzyl alcohol	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Bis(2-chloroethoxy)methane	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Bis(2-chloroethyl)ether	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Bis(2-chloroisopropyl)ether	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Bis(2-ethylhexyl)phthalate	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
4-Bromophenyl phenyl ether	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Butyl benzyl phthalate	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Carbazole	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
4-Chloro-3-methylphenol	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
4-Chloroaniline	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
2-Chloronaphthalene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
2-Chlorophenol	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
4-Chlorophenyl phenyl ether	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Chrysene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Di-n-butyl phthalate	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Di-n-octyl phthalate	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Dibenz(a,h)anthracene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Dibenzofuran	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
1,2-Dichlorobenzene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
1,3-Dichlorobenzene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
1,4-Dichlorobenzene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
3,3'-Dichlorobenzidine	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Diethyl phthalate	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Dimethyl phthalate	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
2,4-Dichlorophenol	ND	40		µg/L	1	6/3/2013 6:02:33 PM	7710
2,4-Dimethylphenol	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
4,6-Dinitro-2-methylphenol	ND	40		µg/L	1	6/3/2013 6:02:33 PM	7710
2,4-Dinitrophenol	ND	40		µg/L	1	6/3/2013 6:02:33 PM	7710
2,4-Dinitrotoluene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 9:15:00 AM

Lab ID: 1305A91-004

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,6-Dinitrotoluene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Fluoranthene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Fluorene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Hexachlorobenzene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Hexachlorobutadiene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Hexachlorocyclopentadiene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Hexachloroethane	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Indeno(1,2,3-cd)pyrene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Isophorone	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
1-Methylnaphthalene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
2-Methylnaphthalene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
2-Methylphenol	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
3+4-Methylphenol	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
N-Nitrosodi-n-propylamine	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
N-Nitrosodimethylamine	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
N-Nitrosodiphenylamine	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Naphthalene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
2-Nitroaniline	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
3-Nitroaniline	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
4-Nitroaniline	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Nitrobenzene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
2-Nitrophenol	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
4-Nitrophenol	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Pentachlorophenol	ND	40		µg/L	1	6/3/2013 6:02:33 PM	7710
Phenanthrene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Phenol	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Pyrene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Pyridine	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
1,2,4-Trichlorobenzene	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
2,4,5-Trichlorophenol	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
2,4,6-Trichlorophenol	ND	20		µg/L	1	6/3/2013 6:02:33 PM	7710
Surr: 2,4,6-Tribromophenol	37.3	41.5-117	S	%REC	1	6/3/2013 6:02:33 PM	7710
Surr: 2-Fluorobiphenyl	58.1	29.1-112		%REC	1	6/3/2013 6:02:33 PM	7710
Surr: 2-Fluorophenol	16.4	11.9-98.6		%REC	1	6/3/2013 6:02:33 PM	7710
Surr: 4-Terphenyl-d14	61.8	46-111		%REC	1	6/3/2013 6:02:33 PM	7710
Surr: Nitrobenzene-d5	71.2	34.9-112		%REC	1	6/3/2013 6:02:33 PM	7710
Surr: Phenol-d5	31.0	17.5-88.3		%REC	1	6/3/2013 6:02:33 PM	7710
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
Toluene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 9:15:00 AM

Lab ID: 1305A91-004

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Ethylbenzene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
Naphthalene	ND	20		µg/L	10	6/5/2013 2:22:15 PM	R11111
1-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 2:22:15 PM	R11111
2-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 2:22:15 PM	R11111
Acetone	ND	100		µg/L	10	6/5/2013 2:22:15 PM	R11111
Bromobenzene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
Bromodichloromethane	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
Bromoform	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
Bromomethane	ND	30		µg/L	10	6/5/2013 2:22:15 PM	R11111
2-Butanone	ND	100		µg/L	10	6/5/2013 2:22:15 PM	R11111
Carbon disulfide	ND	100		µg/L	10	6/5/2013 2:22:15 PM	R11111
Carbon Tetrachloride	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
Chlorobenzene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
Chloroethane	ND	20		µg/L	10	6/5/2013 2:22:15 PM	R11111
Chloroform	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
Chloromethane	ND	30		µg/L	10	6/5/2013 2:22:15 PM	R11111
2-Chlorotoluene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
4-Chlorotoluene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
cis-1,2-DCE	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/5/2013 2:22:15 PM	R11111
Dibromochloromethane	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
Dibromomethane	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,2-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,3-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,4-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
Dichlorodifluoromethane	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,1-Dichloroethane	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,1-Dichloroethene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,2-Dichloropropane	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,3-Dichloropropane	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
2,2-Dichloropropane	ND	20		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,1-Dichloropropene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
Hexachlorobutadiene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
2-Hexanone	ND	100		µg/L	10	6/5/2013 2:22:15 PM	R11111

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 9:15:00 AM

Lab ID: 1305A91-004

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Isopropylbenzene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
4-Isopropyltoluene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
4-Methyl-2-pentanone	ND	100		µg/L	10	6/5/2013 2:22:15 PM	R11111
Methylene Chloride	ND	30		µg/L	10	6/5/2013 2:22:15 PM	R11111
n-Butylbenzene	ND	30		µg/L	10	6/5/2013 2:22:15 PM	R11111
n-Propylbenzene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
sec-Butylbenzene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
Styrene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
tert-Butylbenzene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/5/2013 2:22:15 PM	R11111
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
trans-1,2-DCE	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,1,1-Trichloroethane	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,1,2-Trichloroethane	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
Trichloroethene (TCE)	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
Trichlorofluoromethane	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
1,2,3-Trichloropropane	ND	20		µg/L	10	6/5/2013 2:22:15 PM	R11111
Vinyl chloride	ND	10		µg/L	10	6/5/2013 2:22:15 PM	R11111
Xylenes, Total	ND	15		µg/L	10	6/5/2013 2:22:15 PM	R11111
Surr: 1,2-Dichloroethane-d4	95.7	70-130		%REC	10	6/5/2013 2:22:15 PM	R11111
Surr: 4-Bromofluorobenzene	100	69.5-130		%REC	10	6/5/2013 2:22:15 PM	R11111
Surr: Dibromofluoromethane	98.1	70-130		%REC	10	6/5/2013 2:22:15 PM	R11111
Surr: Toluene-d8	102	70-130		%REC	10	6/5/2013 2:22:15 PM	R11111
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JML
Conductivity	39000	0.10		µmhos/cm	10	5/31/2013 9:12:48 PM	R11023
SM4500-H+B: PH							Analyst: JML
pH	7.88	1.68	H	pH units	1	5/31/2013 1:20:44 PM	R11023

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 9:30:00 AM

Lab ID: 1305A91-005

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	29	1.0	*	mg/L	10	5/29/2013 10:18:21 PM	R10959
Chloride	3800	250		mg/L	500	5/31/2013 11:09:29 PM	R11032
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	5/29/2013 10:18:21 PM	R10959
Bromide	3.0	1.0		mg/L	10	5/29/2013 10:18:21 PM	R10959
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	5/29/2013 10:18:21 PM	R10959
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	5/29/2013 10:18:21 PM	R10959
Sulfate	1700	50		mg/L	100	5/29/2013 10:30:46 PM	R10959
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.057	0.010		mg/L	5	6/7/2013 4:03:53 PM	R11180
Cadmium	ND	0.010		mg/L	5	6/7/2013 4:03:53 PM	R11180
Chromium	ND	0.030		mg/L	5	6/7/2013 4:03:53 PM	R11180
Copper	ND	0.030		mg/L	5	6/10/2013 5:07:59 PM	R11208
Iron	0.49	0.10	*	mg/L	5	6/10/2013 5:07:59 PM	R11208
Manganese	0.25	0.010	*	mg/L	5	6/7/2013 4:03:53 PM	R11180
Silver	ND	0.025		mg/L	5	6/7/2013 4:03:53 PM	R11180
Zinc	0.069	0.050		mg/L	5	6/7/2013 4:03:53 PM	R11180
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.054	0.0020		mg/L	1	6/3/2013 3:21:17 PM	7699
Cadmium	ND	0.0020		mg/L	1	6/3/2013 3:21:17 PM	7699
Chromium	0.012	0.0060		mg/L	1	6/3/2013 3:21:17 PM	7699
Copper	ND	0.0060		mg/L	1	6/3/2013 3:21:17 PM	7699
Iron	0.67	0.020	*	mg/L	1	6/3/2013 3:21:17 PM	7699
Manganese	0.23	0.0020	*	mg/L	1	6/3/2013 3:21:17 PM	7699
Silver	ND	0.025		mg/L	5	6/3/2013 3:23:56 PM	7699
Zinc	0.015	0.010		mg/L	1	6/3/2013 3:21:17 PM	7699
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.015	0.010	*	mg/L	10	6/3/2013 2:02:11 PM	R11035
Lead	ND	0.010		mg/L	10	6/3/2013 2:02:11 PM	R11035
Selenium	0.018	0.010		mg/L	10	6/3/2013 2:02:11 PM	R11035
Uranium	ND	0.010		mg/L	10	6/3/2013 2:02:11 PM	R11035
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.018	0.010	*	mg/L	10	6/4/2013 1:39:37 PM	7699
Lead	ND	0.010		mg/L	10	6/20/2013 3:59:59 PM	7699
Selenium	ND	0.020		mg/L	20	6/5/2013 3:12:59 PM	7699
Uranium	ND	0.010		mg/L	10	6/4/2013 1:39:37 PM	7699
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/11/2013 3:09:03 PM	7853

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 9:30:00 AM

Lab ID: 1305A91-005

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Acenaphthylene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Aniline	31	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Anthracene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Azobenzene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Benz(a)anthracene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Benzo(a)pyrene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Benzo(b)fluoranthene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Benzo(k)fluoranthene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Benzoic acid	ND	20		µg/L	1	6/3/2013 12:51:19 PM	7710
Benzyl alcohol	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Butyl benzyl phthalate	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Carbazole	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
4-Chloroaniline	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
2-Chloronaphthalene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
2-Chlorophenol	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Chrysene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Di-n-butyl phthalate	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Di-n-octyl phthalate	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Dibenzofuran	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
1,2-Dichlorobenzene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
1,3-Dichlorobenzene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
1,4-Dichlorobenzene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Diethyl phthalate	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Dimethyl phthalate	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
2,4-Dichlorophenol	ND	20		µg/L	1	6/3/2013 12:51:19 PM	7710
2,4-Dimethylphenol	110	10		µg/L	1	6/3/2013 12:51:19 PM	7710
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/3/2013 12:51:19 PM	7710
2,4-Dinitrophenol	ND	20		µg/L	1	6/3/2013 12:51:19 PM	7710
2,4-Dinitrotoluene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 9:30:00 AM

Lab ID: 1305A91-005

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,6-Dinitrotoluene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Fluoranthene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Fluorene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Hexachlorobenzene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Hexachlorobutadiene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Hexachloroethane	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Isophorone	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
1-Methylnaphthalene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
2-Methylnaphthalene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
2-Methylphenol	560	200		µg/L	20	6/3/2013 8:06:57 PM	7710
3+4-Methylphenol	1300	200		µg/L	20	6/3/2013 8:06:57 PM	7710
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
N-Nitrosodimethylamine	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Naphthalene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
2-Nitroaniline	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
3-Nitroaniline	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
4-Nitroaniline	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Nitrobenzene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
2-Nitrophenol	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
4-Nitrophenol	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Pentachlorophenol	ND	20		µg/L	1	6/3/2013 12:51:19 PM	7710
Phenanthrene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Phenol	2000	200		µg/L	20	6/3/2013 8:06:57 PM	7710
Pyrene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Pyridine	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/3/2013 12:51:19 PM	7710
Surr: 2,4,6-Tribromophenol	76.2	41.5-117		%REC	1	6/3/2013 12:51:19 PM	7710
Surr: 2-Fluorobiphenyl	49.5	29.1-112		%REC	1	6/3/2013 12:51:19 PM	7710
Surr: 2-Fluorophenol	40.1	11.9-98.6		%REC	1	6/3/2013 12:51:19 PM	7710
Surr: 4-Terphenyl-d14	98.5	46-111		%REC	1	6/3/2013 12:51:19 PM	7710
Surr: Nitrobenzene-d5	93.3	34.9-112		%REC	1	6/3/2013 12:51:19 PM	7710
Surr: Phenol-d5	56.6	17.5-88.3		%REC	1	6/3/2013 12:51:19 PM	7710
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
Toluene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 9:30:00 AM

Lab ID: 1305A91-005

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Ethylbenzene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
Naphthalene	ND	20		µg/L	10	6/5/2013 2:51:00 PM	R11111
1-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 2:51:00 PM	R11111
2-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 2:51:00 PM	R11111
Acetone	170	100		µg/L	10	6/5/2013 2:51:00 PM	R11111
Bromobenzene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
Bromodichloromethane	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
Bromoform	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
Bromomethane	ND	30		µg/L	10	6/5/2013 2:51:00 PM	R11111
2-Butanone	ND	100		µg/L	10	6/5/2013 2:51:00 PM	R11111
Carbon disulfide	140	100		µg/L	10	6/5/2013 2:51:00 PM	R11111
Carbon Tetrachloride	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
Chlorobenzene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
Chloroethane	ND	20		µg/L	10	6/5/2013 2:51:00 PM	R11111
Chloroform	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
Chloromethane	ND	30		µg/L	10	6/5/2013 2:51:00 PM	R11111
2-Chlorotoluene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
4-Chlorotoluene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
cis-1,2-DCE	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/5/2013 2:51:00 PM	R11111
Dibromochloromethane	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
Dibromomethane	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,2-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,3-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,4-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
Dichlorodifluoromethane	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,1-Dichloroethane	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,1-Dichloroethene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,2-Dichloropropane	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,3-Dichloropropane	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
2,2-Dichloropropane	ND	20		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,1-Dichloropropene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
Hexachlorobutadiene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
2-Hexanone	ND	100		µg/L	10	6/5/2013 2:51:00 PM	R11111

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 9:30:00 AM

Lab ID: 1305A91-005

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Isopropylbenzene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
4-Isopropyltoluene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
4-Methyl-2-pentanone	ND	100		µg/L	10	6/5/2013 2:51:00 PM	R11111
Methylene Chloride	ND	30		µg/L	10	6/5/2013 2:51:00 PM	R11111
n-Butylbenzene	ND	30		µg/L	10	6/5/2013 2:51:00 PM	R11111
n-Propylbenzene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
sec-Butylbenzene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
Styrene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
tert-Butylbenzene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/5/2013 2:51:00 PM	R11111
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
trans-1,2-DCE	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,1,1-Trichloroethane	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,1,2-Trichloroethane	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
Trichloroethene (TCE)	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
Trichlorofluoromethane	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
1,2,3-Trichloropropane	ND	20		µg/L	10	6/5/2013 2:51:00 PM	R11111
Vinyl chloride	ND	10		µg/L	10	6/5/2013 2:51:00 PM	R11111
Xylenes, Total	ND	15		µg/L	10	6/5/2013 2:51:00 PM	R11111
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%REC	10	6/5/2013 2:51:00 PM	R11111
Surr: 4-Bromofluorobenzene	97.5	69.5-130		%REC	10	6/5/2013 2:51:00 PM	R11111
Surr: Dibromofluoromethane	100	70-130		%REC	10	6/5/2013 2:51:00 PM	R11111
Surr: Toluene-d8	107	70-130		%REC	10	6/5/2013 2:51:00 PM	R11111
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JML
Conductivity	17000	0.025		µmhos/cm	2.5	5/31/2013 9:16:57 PM	R11023
SM4500-H+B: PH							Analyst: JML
pH	7.98	1.68	H	pH units	1	5/31/2013 1:24:56 PM	R11023

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 9:45:00 AM

Lab ID: 1305A91-006

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	32	1.0	*	mg/L	10	5/29/2013 10:43:10 PM	R10959
Chloride	3100	100		mg/L	200	5/31/2013 11:21:54 PM	R11032
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	5/29/2013 10:43:10 PM	R10959
Bromide	3.1	1.0		mg/L	10	5/29/2013 10:43:10 PM	R10959
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	5/29/2013 10:43:10 PM	R10959
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	5/29/2013 10:43:10 PM	R10959
Sulfate	1500	50		mg/L	100	5/29/2013 10:55:35 PM	R10959
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.052	0.010		mg/L	5	6/7/2013 4:08:40 PM	R11180
Cadmium	ND	0.010		mg/L	5	6/7/2013 4:08:40 PM	R11180
Chromium	ND	0.030		mg/L	5	6/7/2013 4:08:40 PM	R11180
Copper	ND	0.030		mg/L	5	6/7/2013 6:22:58 PM	R11180
Iron	0.78	0.10	*	mg/L	5	6/10/2013 5:10:38 PM	R11208
Manganese	0.27	0.010	*	mg/L	5	6/7/2013 4:08:40 PM	R11180
Silver	ND	0.025		mg/L	5	6/7/2013 4:08:40 PM	R11180
Zinc	ND	0.050		mg/L	5	6/7/2013 4:08:40 PM	R11180
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.049	0.0020		mg/L	1	6/3/2013 3:41:24 PM	7699
Cadmium	ND	0.0020		mg/L	1	6/3/2013 3:41:24 PM	7699
Chromium	0.013	0.0060		mg/L	1	6/3/2013 3:41:24 PM	7699
Copper	ND	0.0060		mg/L	1	6/3/2013 3:41:24 PM	7699
Iron	1.3	0.10	*	mg/L	5	6/3/2013 3:44:03 PM	7699
Manganese	0.25	0.0020	*	mg/L	1	6/3/2013 3:41:24 PM	7699
Silver	ND	0.025		mg/L	5	6/3/2013 3:44:03 PM	7699
Zinc	0.025	0.010		mg/L	1	6/3/2013 3:41:24 PM	7699
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	6/3/2013 2:04:31 PM	R11035
Lead	ND	0.010		mg/L	10	6/3/2013 2:04:31 PM	R11035
Selenium	0.014	0.010		mg/L	10	6/3/2013 2:04:31 PM	R11035
Uranium	ND	0.010		mg/L	10	6/3/2013 2:04:31 PM	R11035
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.013	0.010	*	mg/L	10	6/4/2013 1:41:32 PM	7699
Lead	ND	0.010		mg/L	10	6/20/2013 4:02:25 PM	7699
Selenium	ND	0.020		mg/L	20	6/5/2013 3:14:54 PM	7699
Uranium	ND	0.010		mg/L	10	6/4/2013 1:41:32 PM	7699
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/11/2013 3:10:52 PM	7853

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 9:45:00 AM

Lab ID: 1305A91-006

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Acenaphthylene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Aniline	110	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Anthracene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Azobenzene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Benz(a)anthracene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Benzo(a)pyrene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Benzo(b)fluoranthene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Benzo(g,h,i)perylene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Benzo(k)fluoranthene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Benzoic acid	ND	40		µg/L	1	6/3/2013 6:33:44 PM	7710
Benzyl alcohol	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Bis(2-chloroethoxy)methane	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Bis(2-chloroethyl)ether	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Bis(2-chloroisopropyl)ether	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Bis(2-ethylhexyl)phthalate	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
4-Bromophenyl phenyl ether	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Butyl benzyl phthalate	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Carbazole	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
4-Chloro-3-methylphenol	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
4-Chloroaniline	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
2-Chloronaphthalene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
2-Chlorophenol	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
4-Chlorophenyl phenyl ether	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Chrysene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Di-n-butyl phthalate	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Di-n-octyl phthalate	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Dibenz(a,h)anthracene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Dibenzofuran	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
1,2-Dichlorobenzene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
1,3-Dichlorobenzene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
1,4-Dichlorobenzene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
3,3'-Dichlorobenzidine	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Diethyl phthalate	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Dimethyl phthalate	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
2,4-Dichlorophenol	ND	40		µg/L	1	6/3/2013 6:33:44 PM	7710
2,4-Dimethylphenol	200	20		µg/L	1	6/3/2013 6:33:44 PM	7710
4,6-Dinitro-2-methylphenol	ND	40		µg/L	1	6/3/2013 6:33:44 PM	7710
2,4-Dinitrophenol	ND	40		µg/L	1	6/3/2013 6:33:44 PM	7710
2,4-Dinitrotoluene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 9:45:00 AM

Lab ID: 1305A91-006

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,6-Dinitrotoluene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Fluoranthene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Fluorene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Hexachlorobenzene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Hexachlorobutadiene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Hexachlorocyclopentadiene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Hexachloroethane	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Indeno(1,2,3-cd)pyrene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Isophorone	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
1-Methylnaphthalene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
2-Methylnaphthalene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
2-Methylphenol	1400	400		µg/L	20	6/3/2013 9:38:57 PM	7710
3+4-Methylphenol	3500	400		µg/L	20	6/3/2013 9:38:57 PM	7710
N-Nitrosodi-n-propylamine	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
N-Nitrosodimethylamine	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
N-Nitrosodiphenylamine	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Naphthalene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
2-Nitroaniline	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
3-Nitroaniline	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
4-Nitroaniline	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Nitrobenzene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
2-Nitrophenol	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
4-Nitrophenol	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Pentachlorophenol	ND	40		µg/L	1	6/3/2013 6:33:44 PM	7710
Phenanthrene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Phenol	5500	400		µg/L	20	6/3/2013 9:38:57 PM	7710
Pyrene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Pyridine	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
1,2,4-Trichlorobenzene	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
2,4,5-Trichlorophenol	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
2,4,6-Trichlorophenol	ND	20		µg/L	1	6/3/2013 6:33:44 PM	7710
Surr: 2,4,6-Tribromophenol	80.1	41.5-117		%REC	1	6/3/2013 6:33:44 PM	7710
Surr: 2-Fluorobiphenyl	68.5	29.1-112		%REC	1	6/3/2013 6:33:44 PM	7710
Surr: 2-Fluorophenol	60.5	11.9-98.6		%REC	1	6/3/2013 6:33:44 PM	7710
Surr: 4-Terphenyl-d14	84.6	46-111		%REC	1	6/3/2013 6:33:44 PM	7710
Surr: Nitrobenzene-d5	78.6	34.9-112		%REC	1	6/3/2013 6:33:44 PM	7710
Surr: Phenol-d5	47.6	17.5-88.3		%REC	1	6/3/2013 6:33:44 PM	7710
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
Toluene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 9:45:00 AM

Lab ID: 1305A91-006

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: CWS		
Ethylbenzene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
Naphthalene	ND	20		µg/L	10	6/5/2013 3:19:46 PM	R11111
1-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 3:19:46 PM	R11111
2-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 3:19:46 PM	R11111
Acetone	530	100		µg/L	10	6/5/2013 3:19:46 PM	R11111
Bromobenzene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
Bromodichloromethane	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
Bromoform	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
Bromomethane	ND	30		µg/L	10	6/5/2013 3:19:46 PM	R11111
2-Butanone	ND	100		µg/L	10	6/5/2013 3:19:46 PM	R11111
Carbon disulfide	ND	100		µg/L	10	6/5/2013 3:19:46 PM	R11111
Carbon Tetrachloride	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
Chlorobenzene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
Chloroethane	ND	20		µg/L	10	6/5/2013 3:19:46 PM	R11111
Chloroform	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
Chloromethane	ND	30		µg/L	10	6/5/2013 3:19:46 PM	R11111
2-Chlorotoluene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
4-Chlorotoluene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
cis-1,2-DCE	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/5/2013 3:19:46 PM	R11111
Dibromochloromethane	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
Dibromomethane	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,2-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,3-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,4-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
Dichlorodifluoromethane	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,1-Dichloroethane	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,1-Dichloroethene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,2-Dichloropropane	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,3-Dichloropropane	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
2,2-Dichloropropane	ND	20		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,1-Dichloropropene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
Hexachlorobutadiene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
2-Hexanone	ND	100		µg/L	10	6/5/2013 3:19:46 PM	R11111

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 9:45:00 AM

Lab ID: 1305A91-006

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Isopropylbenzene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
4-Isopropyltoluene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
4-Methyl-2-pentanone	ND	100		µg/L	10	6/5/2013 3:19:46 PM	R11111
Methylene Chloride	ND	30		µg/L	10	6/5/2013 3:19:46 PM	R11111
n-Butylbenzene	ND	30		µg/L	10	6/5/2013 3:19:46 PM	R11111
n-Propylbenzene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
sec-Butylbenzene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
Styrene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
tert-Butylbenzene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/5/2013 3:19:46 PM	R11111
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
trans-1,2-DCE	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,1,1-Trichloroethane	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,1,2-Trichloroethane	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
Trichloroethene (TCE)	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
Trichlorofluoromethane	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
1,2,3-Trichloropropane	ND	20		µg/L	10	6/5/2013 3:19:46 PM	R11111
Vinyl chloride	ND	10		µg/L	10	6/5/2013 3:19:46 PM	R11111
Xylenes, Total	ND	15		µg/L	10	6/5/2013 3:19:46 PM	R11111
Surr: 1,2-Dichloroethane-d4	98.5	70-130		%REC	10	6/5/2013 3:19:46 PM	R11111
Surr: 4-Bromofluorobenzene	89.2	69.5-130		%REC	10	6/5/2013 3:19:46 PM	R11111
Surr: Dibromofluoromethane	101	70-130		%REC	10	6/5/2013 3:19:46 PM	R11111
Surr: Toluene-d8	105	70-130		%REC	10	6/5/2013 3:19:46 PM	R11111
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JML
Conductivity	14000	0.025		µmhos/cm	2.5	5/31/2013 9:45:59 PM	R11023
SM4500-H+B: PH							Analyst: JML
pH	7.93	1.68	H	pH units	1	5/31/2013 1:29:10 PM	R11023

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:00:00 PM

Lab ID: 1305A91-007

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	15	10	*	mg/L	100	5/29/2013 11:20:24 PM	R10959
Chloride	11000	500		mg/L	1E	5/31/2013 11:34:18 PM	R11032
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	5/29/2013 11:20:24 PM	R10959
Bromide	4.4	1.0		mg/L	10	5/29/2013 11:07:59 PM	R10959
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	5/29/2013 11:07:59 PM	R10959
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	5/29/2013 11:07:59 PM	R10959
Sulfate	1900	50		mg/L	100	5/29/2013 11:20:24 PM	R10959
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.096	0.010		mg/L	5	6/7/2013 6:27:20 PM	R11180
Cadmium	ND	0.010		mg/L	5	6/7/2013 6:27:20 PM	R11180
Chromium	ND	0.030		mg/L	5	6/7/2013 6:27:20 PM	R11180
Copper	ND	0.030		mg/L	5	6/7/2013 6:27:20 PM	R11180
Iron	ND	0.10		mg/L	5	6/10/2013 5:13:18 PM	R11208
Manganese	0.15	0.010	*	mg/L	5	6/7/2013 6:27:20 PM	R11180
Silver	ND	0.025		mg/L	5	6/7/2013 6:27:20 PM	R11180
Zinc	0.069	0.050		mg/L	5	6/7/2013 6:27:20 PM	R11180
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.090	0.0020		mg/L	1	6/3/2013 3:46:23 PM	7699
Cadmium	ND	0.0020		mg/L	1	6/3/2013 3:46:23 PM	7699
Chromium	0.0088	0.0060		mg/L	1	6/3/2013 3:46:23 PM	7699
Copper	ND	0.0060		mg/L	1	6/3/2013 3:46:23 PM	7699
Iron	0.13	0.020		mg/L	1	6/3/2013 3:46:23 PM	7699
Manganese	0.13	0.0020	*	mg/L	1	6/3/2013 3:46:23 PM	7699
Silver	ND	0.025		mg/L	5	6/3/2013 3:49:11 PM	7699
Zinc	ND	0.010		mg/L	1	6/3/2013 3:46:23 PM	7699
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.021	0.010	*	mg/L	10	6/3/2013 2:06:52 PM	R11035
Lead	ND	0.010		mg/L	10	6/3/2013 2:06:52 PM	R11035
Selenium	0.020	0.010		mg/L	10	6/3/2013 2:06:52 PM	R11035
Uranium	ND	0.010		mg/L	10	6/3/2013 2:06:52 PM	R11035
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.023	0.010	*	mg/L	10	6/5/2013 3:18:44 PM	7699
Lead	ND	0.010		mg/L	10	6/20/2013 4:04:51 PM	7699
Selenium	ND	0.020		mg/L	20	6/5/2013 3:16:49 PM	7699
Uranium	ND	0.0020		mg/L	2	6/5/2013 3:32:21 PM	7699
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/11/2013 3:12:41 PM	7853

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:00:00 PM

Lab ID: 1305A91-007

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Acenaphthylene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Aniline	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Anthracene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Azobenzene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Benz(a)anthracene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Benzo(a)pyrene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Benzo(b)fluoranthene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Benzo(g,h,i)perylene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Benzo(k)fluoranthene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Benzoic acid	ND	200		µg/L	1	6/3/2013 4:29:21 PM	7710
Benzyl alcohol	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Bis(2-chloroethoxy)methane	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Bis(2-chloroethyl)ether	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Bis(2-chloroisopropyl)ether	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Bis(2-ethylhexyl)phthalate	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
4-Bromophenyl phenyl ether	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Butyl benzyl phthalate	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Carbazole	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
4-Chloro-3-methylphenol	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
4-Chloroaniline	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
2-Chloronaphthalene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
2-Chlorophenol	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
4-Chlorophenyl phenyl ether	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Chrysene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Di-n-butyl phthalate	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Di-n-octyl phthalate	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Dibenz(a,h)anthracene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Dibenzofuran	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
1,2-Dichlorobenzene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
1,3-Dichlorobenzene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
1,4-Dichlorobenzene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
3,3'-Dichlorobenzidine	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Diethyl phthalate	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Dimethyl phthalate	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
2,4-Dichlorophenol	ND	200		µg/L	1	6/3/2013 4:29:21 PM	7710
2,4-Dimethylphenol	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
4,6-Dinitro-2-methylphenol	ND	200		µg/L	1	6/3/2013 4:29:21 PM	7710
2,4-Dinitrophenol	ND	200		µg/L	1	6/3/2013 4:29:21 PM	7710
2,4-Dinitrotoluene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:00:00 PM

Lab ID: 1305A91-007

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,6-Dinitrotoluene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Fluoranthene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Fluorene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Hexachlorobenzene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Hexachlorobutadiene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Hexachlorocyclopentadiene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Hexachloroethane	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Indeno(1,2,3-cd)pyrene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Isophorone	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
1-Methylnaphthalene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
2-Methylnaphthalene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
2-Methylphenol	260	100		µg/L	1	6/3/2013 4:29:21 PM	7710
3+4-Methylphenol	230	100		µg/L	1	6/3/2013 4:29:21 PM	7710
N-Nitrosodi-n-propylamine	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
N-Nitrosodimethylamine	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
N-Nitrosodiphenylamine	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Naphthalene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
2-Nitroaniline	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
3-Nitroaniline	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
4-Nitroaniline	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Nitrobenzene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
2-Nitrophenol	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
4-Nitrophenol	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Pentachlorophenol	ND	200		µg/L	1	6/3/2013 4:29:21 PM	7710
Phenanthrene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Phenol	140	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Pyrene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Pyridine	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
1,2,4-Trichlorobenzene	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
2,4,5-Trichlorophenol	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
2,4,6-Trichlorophenol	ND	100		µg/L	1	6/3/2013 4:29:21 PM	7710
Surr: 2,4,6-Tribromophenol	21.4	41.5-117	S	%REC	1	6/3/2013 4:29:21 PM	7710
Surr: 2-Fluorobiphenyl	89.1	29.1-112		%REC	1	6/3/2013 4:29:21 PM	7710
Surr: 2-Fluorophenol	21.1	11.9-98.6		%REC	1	6/3/2013 4:29:21 PM	7710
Surr: 4-Terphenyl-d14	103	46-111		%REC	1	6/3/2013 4:29:21 PM	7710
Surr: Nitrobenzene-d5	96.6	34.9-112		%REC	1	6/3/2013 4:29:21 PM	7710
Surr: Phenol-d5	41.6	17.5-88.3		%REC	1	6/3/2013 4:29:21 PM	7710
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
Toluene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:00:00 PM

Lab ID: 1305A91-007

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Ethylbenzene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
Naphthalene	ND	20		µg/L	10	6/5/2013 3:48:30 PM	R11111
1-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 3:48:30 PM	R11111
2-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 3:48:30 PM	R11111
Acetone	ND	100		µg/L	10	6/5/2013 3:48:30 PM	R11111
Bromobenzene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
Bromodichloromethane	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
Bromoform	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
Bromomethane	ND	30		µg/L	10	6/5/2013 3:48:30 PM	R11111
2-Butanone	ND	100		µg/L	10	6/5/2013 3:48:30 PM	R11111
Carbon disulfide	110	100		µg/L	10	6/5/2013 3:48:30 PM	R11111
Carbon Tetrachloride	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
Chlorobenzene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
Chloroethane	ND	20		µg/L	10	6/5/2013 3:48:30 PM	R11111
Chloroform	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
Chloromethane	ND	30		µg/L	10	6/5/2013 3:48:30 PM	R11111
2-Chlorotoluene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
4-Chlorotoluene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
cis-1,2-DCE	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/5/2013 3:48:30 PM	R11111
Dibromochloromethane	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
Dibromomethane	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,2-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,3-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,4-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
Dichlorodifluoromethane	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,1-Dichloroethane	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,1-Dichloroethene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,2-Dichloropropane	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,3-Dichloropropane	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
2,2-Dichloropropane	ND	20		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,1-Dichloropropene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
Hexachlorobutadiene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
2-Hexanone	ND	100		µg/L	10	6/5/2013 3:48:30 PM	R11111

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:00:00 PM

Lab ID: 1305A91-007

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Isopropylbenzene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
4-Isopropyltoluene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
4-Methyl-2-pentanone	ND	100		µg/L	10	6/5/2013 3:48:30 PM	R11111
Methylene Chloride	ND	30		µg/L	10	6/5/2013 3:48:30 PM	R11111
n-Butylbenzene	ND	30		µg/L	10	6/5/2013 3:48:30 PM	R11111
n-Propylbenzene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
sec-Butylbenzene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
Styrene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
tert-Butylbenzene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/5/2013 3:48:30 PM	R11111
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
trans-1,2-DCE	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,1,1-Trichloroethane	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,1,2-Trichloroethane	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
Trichloroethene (TCE)	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
Trichlorofluoromethane	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
1,2,3-Trichloropropane	ND	20		µg/L	10	6/5/2013 3:48:30 PM	R11111
Vinyl chloride	ND	10		µg/L	10	6/5/2013 3:48:30 PM	R11111
Xylenes, Total	ND	15		µg/L	10	6/5/2013 3:48:30 PM	R11111
Surr: 1,2-Dichloroethane-d4	98.6	70-130		%REC	10	6/5/2013 3:48:30 PM	R11111
Surr: 4-Bromofluorobenzene	95.0	69.5-130		%REC	10	6/5/2013 3:48:30 PM	R11111
Surr: Dibromofluoromethane	104	70-130		%REC	10	6/5/2013 3:48:30 PM	R11111
Surr: Toluene-d8	101	70-130		%REC	10	6/5/2013 3:48:30 PM	R11111
SM2510B: SPECIFIC CONDUCTANCE				Analyst: JML			
Conductivity	41000	0.10		µmhos/cm	10	5/31/2013 9:50:00 PM	R11023
SM4500-H+B: PH				Analyst: JML			
pH	7.70	1.68	H	pH units	1	5/31/2013 1:33:21 PM	R11023

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:15:00 PM

Lab ID: 1305A91-008

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	17	10	*	mg/L	100	5/29/2013 11:45:14 PM	R10959
Chloride	8400	500		mg/L	1E	5/31/2013 11:46:43 PM	R11032
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	5/29/2013 11:45:14 PM	R10959
Bromide	2.9	1.0		mg/L	10	5/29/2013 11:32:49 PM	R10959
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	5/29/2013 11:32:49 PM	R10959
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	5/29/2013 11:32:49 PM	R10959
Sulfate	1400	50		mg/L	100	5/29/2013 11:45:14 PM	R10959
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.085	0.010		mg/L	5	6/7/2013 6:31:30 PM	R11180
Cadmium	ND	0.010		mg/L	5	6/7/2013 6:31:30 PM	R11180
Chromium	ND	0.030		mg/L	5	6/7/2013 6:31:30 PM	R11180
Copper	ND	0.030		mg/L	5	6/7/2013 6:31:30 PM	R11180
Iron	0.28	0.10		mg/L	5	6/10/2013 5:25:51 PM	R11208
Manganese	0.16	0.010	*	mg/L	5	6/7/2013 6:31:30 PM	R11180
Silver	ND	0.025		mg/L	5	6/7/2013 6:31:30 PM	R11180
Zinc	ND	0.050		mg/L	5	6/7/2013 6:31:30 PM	R11180
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.084	0.0020		mg/L	1	6/3/2013 3:52:03 PM	7699
Cadmium	ND	0.0020		mg/L	1	6/3/2013 3:52:03 PM	7699
Chromium	0.012	0.0060		mg/L	1	6/3/2013 3:52:03 PM	7699
Copper	ND	0.0060		mg/L	1	6/3/2013 3:52:03 PM	7699
Iron	0.47	0.020	*	mg/L	1	6/3/2013 3:52:03 PM	7699
Manganese	0.16	0.0020	*	mg/L	1	6/3/2013 3:52:03 PM	7699
Silver	ND	0.025		mg/L	5	6/3/2013 3:54:27 PM	7699
Zinc	0.014	0.010		mg/L	1	6/3/2013 3:52:03 PM	7699
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.013	0.010	*	mg/L	10	6/3/2013 2:09:13 PM	R11035
Lead	ND	0.010		mg/L	10	6/3/2013 2:09:13 PM	R11035
Selenium	0.019	0.010		mg/L	10	6/3/2013 2:09:13 PM	R11035
Uranium	ND	0.010		mg/L	10	6/3/2013 2:09:13 PM	R11035
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.012	0.010	*	mg/L	10	6/4/2013 1:55:04 PM	7699
Lead	ND	0.010		mg/L	10	6/20/2013 4:07:18 PM	7699
Selenium	ND	0.020		mg/L	20	6/5/2013 3:28:25 PM	7699
Uranium	ND	0.010		mg/L	10	6/4/2013 1:55:04 PM	7699
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/11/2013 3:18:11 PM	7853

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:15:00 PM

Lab ID: 1305A91-008

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Acenaphthylene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Aniline	32	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Anthracene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Azobenzene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Benz(a)anthracene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Benzo(a)pyrene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Benzo(b)fluoranthene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Benzo(g,h,i)perylene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Benzo(k)fluoranthene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Benzoic acid	ND	40		µg/L	1	6/3/2013 1:53:36 PM	7710
Benzyl alcohol	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Bis(2-chloroethoxy)methane	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Bis(2-chloroethyl)ether	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Bis(2-chloroisopropyl)ether	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Bis(2-ethylhexyl)phthalate	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
4-Bromophenyl phenyl ether	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Butyl benzyl phthalate	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Carbazole	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
4-Chloro-3-methylphenol	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
4-Chloroaniline	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
2-Chloronaphthalene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
2-Chlorophenol	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
4-Chlorophenyl phenyl ether	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Chrysene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Di-n-butyl phthalate	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Di-n-octyl phthalate	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Dibenz(a,h)anthracene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Dibenzofuran	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
1,2-Dichlorobenzene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
1,3-Dichlorobenzene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
1,4-Dichlorobenzene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
3,3'-Dichlorobenzidine	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Diethyl phthalate	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Dimethyl phthalate	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
2,4-Dichlorophenol	ND	40		µg/L	1	6/3/2013 1:53:36 PM	7710
2,4-Dimethylphenol	84	20		µg/L	1	6/3/2013 1:53:36 PM	7710
4,6-Dinitro-2-methylphenol	ND	40		µg/L	1	6/3/2013 1:53:36 PM	7710
2,4-Dinitrophenol	ND	40		µg/L	1	6/3/2013 1:53:36 PM	7710
2,4-Dinitrotoluene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:15:00 PM

Lab ID: 1305A91-008

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,6-Dinitrotoluene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Fluoranthene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Fluorene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Hexachlorobenzene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Hexachlorobutadiene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Hexachlorocyclopentadiene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Hexachloroethane	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Indeno(1,2,3-cd)pyrene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Isophorone	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
1-Methylnaphthalene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
2-Methylnaphthalene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
2-Methylphenol	460	200		µg/L	10	6/3/2013 8:38:03 PM	7710
3+4-Methylphenol	930	200		µg/L	10	6/3/2013 8:38:03 PM	7710
N-Nitrosodi-n-propylamine	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
N-Nitrosodimethylamine	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
N-Nitrosodiphenylamine	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Naphthalene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
2-Nitroaniline	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
3-Nitroaniline	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
4-Nitroaniline	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Nitrobenzene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
2-Nitrophenol	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
4-Nitrophenol	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Pentachlorophenol	ND	40		µg/L	1	6/3/2013 1:53:36 PM	7710
Phenanthrene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Phenol	1200	200		µg/L	10	6/3/2013 8:38:03 PM	7710
Pyrene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Pyridine	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
1,2,4-Trichlorobenzene	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
2,4,5-Trichlorophenol	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
2,4,6-Trichlorophenol	ND	20		µg/L	1	6/3/2013 1:53:36 PM	7710
Surr: 2,4,6-Tribromophenol	46.1	41.5-117		%REC	1	6/3/2013 1:53:36 PM	7710
Surr: 2-Fluorobiphenyl	58.9	29.1-112		%REC	1	6/3/2013 1:53:36 PM	7710
Surr: 2-Fluorophenol	32.3	11.9-98.6		%REC	1	6/3/2013 1:53:36 PM	7710
Surr: 4-Terphenyl-d14	71.7	46-111		%REC	1	6/3/2013 1:53:36 PM	7710
Surr: Nitrobenzene-d5	84.3	34.9-112		%REC	1	6/3/2013 1:53:36 PM	7710
Surr: Phenol-d5	35.8	17.5-88.3		%REC	1	6/3/2013 1:53:36 PM	7710
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
Toluene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:15:00 PM

Lab ID: 1305A91-008

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: CWS		
Ethylbenzene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
Naphthalene	ND	20		µg/L	10	6/5/2013 4:17:16 PM	R11111
1-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 4:17:16 PM	R11111
2-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 4:17:16 PM	R11111
Acetone	110	100		µg/L	10	6/5/2013 4:17:16 PM	R11111
Bromobenzene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
Bromodichloromethane	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
Bromoform	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
Bromomethane	ND	30		µg/L	10	6/5/2013 4:17:16 PM	R11111
2-Butanone	ND	100		µg/L	10	6/5/2013 4:17:16 PM	R11111
Carbon disulfide	ND	100		µg/L	10	6/5/2013 4:17:16 PM	R11111
Carbon Tetrachloride	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
Chlorobenzene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
Chloroethane	ND	20		µg/L	10	6/5/2013 4:17:16 PM	R11111
Chloroform	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
Chloromethane	ND	30		µg/L	10	6/5/2013 4:17:16 PM	R11111
2-Chlorotoluene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
4-Chlorotoluene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
cis-1,2-DCE	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/5/2013 4:17:16 PM	R11111
Dibromochloromethane	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
Dibromomethane	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,2-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,3-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,4-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
Dichlorodifluoromethane	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,1-Dichloroethane	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,1-Dichloroethene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,2-Dichloropropane	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,3-Dichloropropane	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
2,2-Dichloropropane	ND	20		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,1-Dichloropropene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
Hexachlorobutadiene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
2-Hexanone	ND	100		µg/L	10	6/5/2013 4:17:16 PM	R11111

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:15:00 PM

Lab ID: 1305A91-008

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Isopropylbenzene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
4-Isopropyltoluene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
4-Methyl-2-pentanone	ND	100		µg/L	10	6/5/2013 4:17:16 PM	R11111
Methylene Chloride	ND	30		µg/L	10	6/5/2013 4:17:16 PM	R11111
n-Butylbenzene	ND	30		µg/L	10	6/5/2013 4:17:16 PM	R11111
n-Propylbenzene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
sec-Butylbenzene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
Styrene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
tert-Butylbenzene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/5/2013 4:17:16 PM	R11111
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
trans-1,2-DCE	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,1,1-Trichloroethane	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,1,2-Trichloroethane	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
Trichloroethene (TCE)	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
Trichlorofluoromethane	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
1,2,3-Trichloropropane	ND	20		µg/L	10	6/5/2013 4:17:16 PM	R11111
Vinyl chloride	ND	10		µg/L	10	6/5/2013 4:17:16 PM	R11111
Xylenes, Total	ND	15		µg/L	10	6/5/2013 4:17:16 PM	R11111
Surr: 1,2-Dichloroethane-d4	97.3	70-130		%REC	10	6/5/2013 4:17:16 PM	R11111
Surr: 4-Bromofluorobenzene	98.8	69.5-130		%REC	10	6/5/2013 4:17:16 PM	R11111
Surr: Dibromofluoromethane	104	70-130		%REC	10	6/5/2013 4:17:16 PM	R11111
Surr: Toluene-d8	104	70-130		%REC	10	6/5/2013 4:17:16 PM	R11111
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JML
Conductivity	32000	0.10		µmhos/cm	10	5/31/2013 9:54:09 PM	R11023
SM4500-H+B: PH							Analyst: JML
pH	7.67	1.68	H	pH units	1	5/31/2013 1:37:31 PM	R11023

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:30:00 PM

Lab ID: 1305A91-009

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	19	10	*	mg/L	100	5/30/2013 12:10:02 AM	R10959
Chloride	7700	500		mg/L	1E	5/31/2013 11:59:07 PM	R11032
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	5/30/2013 12:10:02 AM	R10959
Bromide	2.6	1.0		mg/L	10	5/29/2013 11:57:38 PM	R10959
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	5/29/2013 11:57:38 PM	R10959
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	5/29/2013 11:57:38 PM	R10959
Sulfate	1500	50		mg/L	100	5/30/2013 12:10:02 AM	R10959
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.085	0.010		mg/L	5	6/7/2013 6:35:41 PM	R11180
Cadmium	ND	0.010		mg/L	5	6/7/2013 6:35:41 PM	R11180
Chromium	ND	0.030		mg/L	5	6/7/2013 6:35:41 PM	R11180
Copper	ND	0.030		mg/L	5	6/7/2013 6:35:41 PM	R11180
Iron	0.31	0.10	*	mg/L	5	6/10/2013 5:28:47 PM	R11208
Manganese	0.19	0.010	*	mg/L	5	6/7/2013 6:35:41 PM	R11180
Silver	ND	0.025		mg/L	5	6/7/2013 6:35:41 PM	R11180
Zinc	ND	0.050		mg/L	5	6/7/2013 6:35:41 PM	R11180
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.082	0.0020		mg/L	1	6/3/2013 3:57:12 PM	7699
Cadmium	ND	0.0020		mg/L	1	6/3/2013 3:57:12 PM	7699
Chromium	0.012	0.0060		mg/L	1	6/3/2013 3:57:12 PM	7699
Copper	ND	0.0060		mg/L	1	6/3/2013 3:57:12 PM	7699
Iron	0.58	0.020	*	mg/L	1	6/3/2013 3:57:12 PM	7699
Manganese	0.18	0.0020	*	mg/L	1	6/3/2013 3:57:12 PM	7699
Silver	ND	0.025		mg/L	5	6/3/2013 3:59:37 PM	7699
Zinc	0.015	0.010		mg/L	1	6/3/2013 3:57:12 PM	7699
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.013	0.010	*	mg/L	10	6/3/2013 2:11:33 PM	R11035
Lead	ND	0.010		mg/L	10	6/3/2013 2:11:33 PM	R11035
Selenium	0.019	0.010		mg/L	10	6/3/2013 2:11:33 PM	R11035
Uranium	ND	0.010		mg/L	10	6/3/2013 2:11:33 PM	R11035
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.014	0.010	*	mg/L	10	6/4/2013 1:56:59 PM	7699
Lead	ND	0.010		mg/L	10	6/20/2013 4:09:44 PM	7699
Selenium	ND	0.020		mg/L	20	6/5/2013 3:30:21 PM	7699
Uranium	ND	0.010		mg/L	10	6/4/2013 1:56:59 PM	7699
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/11/2013 3:20:01 PM	7853

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:30:00 PM

Lab ID: 1305A91-009

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Acenaphthylene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Aniline	29	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Anthracene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Azobenzene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Benz(a)anthracene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Benzo(a)pyrene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Benzo(b)fluoranthene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Benzo(g,h,i)perylene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Benzo(k)fluoranthene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Benzoic acid	ND	40		µg/L	1	6/3/2013 3:27:15 PM	7710
Benzyl alcohol	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Bis(2-chloroethoxy)methane	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Bis(2-chloroethyl)ether	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Bis(2-chloroisopropyl)ether	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Bis(2-ethylhexyl)phthalate	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
4-Bromophenyl phenyl ether	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Butyl benzyl phthalate	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Carbazole	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
4-Chloro-3-methylphenol	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
4-Chloroaniline	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
2-Chloronaphthalene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
2-Chlorophenol	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
4-Chlorophenyl phenyl ether	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Chrysene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Di-n-butyl phthalate	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Di-n-octyl phthalate	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Dibenz(a,h)anthracene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Dibenzofuran	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
1,2-Dichlorobenzene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
1,3-Dichlorobenzene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
1,4-Dichlorobenzene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
3,3'-Dichlorobenzidine	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Diethyl phthalate	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Dimethyl phthalate	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
2,4-Dichlorophenol	ND	40		µg/L	1	6/3/2013 3:27:15 PM	7710
2,4-Dimethylphenol	71	20		µg/L	1	6/3/2013 3:27:15 PM	7710
4,6-Dinitro-2-methylphenol	ND	40		µg/L	1	6/3/2013 3:27:15 PM	7710
2,4-Dinitrophenol	ND	40		µg/L	1	6/3/2013 3:27:15 PM	7710
2,4-Dinitrotoluene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:30:00 PM

Lab ID: 1305A91-009

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,6-Dinitrotoluene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Fluoranthene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Fluorene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Hexachlorobenzene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Hexachlorobutadiene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Hexachlorocyclopentadiene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Hexachloroethane	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Indeno(1,2,3-cd)pyrene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Isophorone	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
1-Methylnaphthalene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
2-Methylnaphthalene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
2-Methylphenol	480	200		µg/L	10	6/3/2013 9:10:10 PM	7710
3+4-Methylphenol	1000	200		µg/L	10	6/3/2013 9:10:10 PM	7710
N-Nitrosodi-n-propylamine	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
N-Nitrosodimethylamine	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
N-Nitrosodiphenylamine	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Naphthalene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
2-Nitroaniline	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
3-Nitroaniline	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
4-Nitroaniline	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Nitrobenzene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
2-Nitrophenol	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
4-Nitrophenol	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Pentachlorophenol	ND	40		µg/L	1	6/3/2013 3:27:15 PM	7710
Phenanthrene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Phenol	1400	200		µg/L	10	6/3/2013 9:10:10 PM	7710
Pyrene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Pyridine	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
1,2,4-Trichlorobenzene	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
2,4,5-Trichlorophenol	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
2,4,6-Trichlorophenol	ND	20		µg/L	1	6/3/2013 3:27:15 PM	7710
Surr: 2,4,6-Tribromophenol	26.7	41.5-117	S	%REC	1	6/3/2013 3:27:15 PM	7710
Surr: 2-Fluorobiphenyl	43.5	29.1-112		%REC	1	6/3/2013 3:27:15 PM	7710
Surr: 2-Fluorophenol	18.9	11.9-98.6		%REC	1	6/3/2013 3:27:15 PM	7710
Surr: 4-Terphenyl-d14	59.4	46-111		%REC	1	6/3/2013 3:27:15 PM	7710
Surr: Nitrobenzene-d5	53.4	34.9-112		%REC	1	6/3/2013 3:27:15 PM	7710
Surr: Phenol-d5	30.9	17.5-88.3		%REC	1	6/3/2013 3:27:15 PM	7710
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
Toluene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:30:00 PM

Lab ID: 1305A91-009

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: CWS		
Ethylbenzene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
Naphthalene	ND	20		µg/L	10	6/5/2013 4:45:59 PM	R11111
1-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 4:45:59 PM	R11111
2-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 4:45:59 PM	R11111
Acetone	120	100		µg/L	10	6/5/2013 4:45:59 PM	R11111
Bromobenzene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
Bromodichloromethane	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
Bromoform	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
Bromomethane	ND	30		µg/L	10	6/5/2013 4:45:59 PM	R11111
2-Butanone	ND	100		µg/L	10	6/5/2013 4:45:59 PM	R11111
Carbon disulfide	ND	100		µg/L	10	6/5/2013 4:45:59 PM	R11111
Carbon Tetrachloride	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
Chlorobenzene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
Chloroethane	ND	20		µg/L	10	6/5/2013 4:45:59 PM	R11111
Chloroform	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
Chloromethane	ND	30		µg/L	10	6/5/2013 4:45:59 PM	R11111
2-Chlorotoluene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
4-Chlorotoluene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
cis-1,2-DCE	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/5/2013 4:45:59 PM	R11111
Dibromochloromethane	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
Dibromomethane	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,2-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,3-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,4-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
Dichlorodifluoromethane	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,1-Dichloroethane	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,1-Dichloroethene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,2-Dichloropropane	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,3-Dichloropropane	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
2,2-Dichloropropane	ND	20		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,1-Dichloropropene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
Hexachlorobutadiene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
2-Hexanone	ND	100		µg/L	10	6/5/2013 4:45:59 PM	R11111

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:30:00 PM

Lab ID: 1305A91-009

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Isopropylbenzene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
4-Isopropyltoluene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
4-Methyl-2-pentanone	ND	100		µg/L	10	6/5/2013 4:45:59 PM	R11111
Methylene Chloride	ND	30		µg/L	10	6/5/2013 4:45:59 PM	R11111
n-Butylbenzene	ND	30		µg/L	10	6/5/2013 4:45:59 PM	R11111
n-Propylbenzene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
sec-Butylbenzene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
Styrene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
tert-Butylbenzene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/5/2013 4:45:59 PM	R11111
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
trans-1,2-DCE	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,1,1-Trichloroethane	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,1,2-Trichloroethane	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
Trichloroethene (TCE)	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
Trichlorofluoromethane	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
1,2,3-Trichloropropane	ND	20		µg/L	10	6/5/2013 4:45:59 PM	R11111
Vinyl chloride	ND	10		µg/L	10	6/5/2013 4:45:59 PM	R11111
Xylenes, Total	ND	15		µg/L	10	6/5/2013 4:45:59 PM	R11111
Surr: 1,2-Dichloroethane-d4	98.6	70-130		%REC	10	6/5/2013 4:45:59 PM	R11111
Surr: 4-Bromofluorobenzene	96.0	69.5-130		%REC	10	6/5/2013 4:45:59 PM	R11111
Surr: Dibromofluoromethane	103	70-130		%REC	10	6/5/2013 4:45:59 PM	R11111
Surr: Toluene-d8	107	70-130		%REC	10	6/5/2013 4:45:59 PM	R11111
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JML
Conductivity	32000	0.10		µmhos/cm	10	5/31/2013 9:58:17 PM	R11023
SM4500-H+B: PH							Analyst: JML
pH	7.77	1.68	H	pH units	1	5/31/2013 1:41:29 PM	R11023

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:50:00 PM

Lab ID: 1305A91-010

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	21	10	*	mg/L	100	5/30/2013 12:59:40 AM	R10959
Chloride	6500	500		mg/L	1E	6/1/2013 12:36:21 AM	R11032
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	5/30/2013 12:59:40 AM	R10959
Bromide	2.7	1.0		mg/L	10	5/30/2013 12:47:15 AM	R10959
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	5/30/2013 12:47:15 AM	R10959
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	5/30/2013 12:47:15 AM	R10959
Sulfate	1400	50		mg/L	100	5/30/2013 12:59:40 AM	R10959
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.088	0.010		mg/L	5	6/7/2013 6:39:55 PM	R11180
Cadmium	ND	0.010		mg/L	5	6/7/2013 6:39:55 PM	R11180
Chromium	ND	0.030		mg/L	5	6/7/2013 6:39:55 PM	R11180
Copper	ND	0.030		mg/L	5	6/7/2013 6:39:55 PM	R11180
Iron	0.41	0.10	*	mg/L	5	6/10/2013 5:31:40 PM	R11208
Manganese	0.26	0.010	*	mg/L	5	6/7/2013 6:39:55 PM	R11180
Silver	ND	0.025		mg/L	5	6/7/2013 6:39:55 PM	R11180
Zinc	0.072	0.050		mg/L	5	6/7/2013 6:39:55 PM	R11180
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.079	0.0020		mg/L	1	6/11/2013 5:00:19 PM	7831
Cadmium	ND	0.0020		mg/L	1	6/11/2013 5:00:19 PM	7831
Chromium	0.011	0.0060		mg/L	1	6/11/2013 5:00:19 PM	7831
Copper	ND	0.0060		mg/L	1	6/11/2013 5:00:19 PM	7831
Iron	0.89	0.020	*	mg/L	1	6/11/2013 5:00:19 PM	7831
Manganese	0.22	0.0020	*	mg/L	1	6/11/2013 5:00:19 PM	7831
Silver	ND	0.025		mg/L	5	6/11/2013 5:02:48 PM	7831
Zinc	0.016	0.010		mg/L	1	6/11/2013 5:00:19 PM	7831
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.011	0.010	*	mg/L	10	6/3/2013 2:18:40 PM	R11035
Lead	ND	0.010		mg/L	10	6/3/2013 2:18:40 PM	R11035
Selenium	0.013	0.010		mg/L	10	6/3/2013 2:18:40 PM	R11035
Uranium	ND	0.010		mg/L	10	6/3/2013 2:18:40 PM	R11035
200.8 ICPMS METALS:TOTAL							Analyst: TES
Arsenic	0.013	0.0050	*	mg/L	5	6/12/2013 6:27:39 PM	7831
Lead	ND	0.0050		mg/L	5	6/12/2013 6:27:39 PM	7831
Selenium	0.013	0.0050		mg/L	5	6/12/2013 6:27:39 PM	7831
Uranium	ND	0.0050		mg/L	5	6/12/2013 6:27:39 PM	7831
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/11/2013 3:21:50 PM	7853

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:50:00 PM

Lab ID: 1305A91-010

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Acenaphthylene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Aniline	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Anthracene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Azobenzene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Benz(a)anthracene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Benzo(a)pyrene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Benzo(b)fluoranthene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Benzo(k)fluoranthene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Benzoic acid	ND	100		µg/L	1	6/3/2013 7:04:53 PM	7710
Benzyl alcohol	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Butyl benzyl phthalate	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Carbazole	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
4-Chloroaniline	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
2-Chloronaphthalene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
2-Chlorophenol	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Chrysene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Di-n-butyl phthalate	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Di-n-octyl phthalate	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Dibenzofuran	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
1,2-Dichlorobenzene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
1,3-Dichlorobenzene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
1,4-Dichlorobenzene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
3,3'-Dichlorobenzidine	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Diethyl phthalate	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Dimethyl phthalate	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
2,4-Dichlorophenol	ND	100		µg/L	1	6/3/2013 7:04:53 PM	7710
2,4-Dimethylphenol	110	50		µg/L	1	6/3/2013 7:04:53 PM	7710
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/3/2013 7:04:53 PM	7710
2,4-Dinitrophenol	ND	100		µg/L	1	6/3/2013 7:04:53 PM	7710
2,4-Dinitrotoluene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:50:00 PM

Lab ID: 1305A91-010

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,6-Dinitrotoluene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Fluoranthene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Fluorene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Hexachlorobenzene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Hexachlorobutadiene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Hexachloroethane	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Isophorone	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
1-Methylnaphthalene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
2-Methylnaphthalene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
2-Methylphenol	960	50		µg/L	1	6/3/2013 7:04:53 PM	7710
3+4-Methylphenol	1900	500		µg/L	10	6/3/2013 10:07:46 PM	7710
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
N-Nitrosodimethylamine	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Naphthalene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
2-Nitroaniline	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
3-Nitroaniline	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
4-Nitroaniline	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Nitrobenzene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
2-Nitrophenol	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
4-Nitrophenol	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Pentachlorophenol	ND	100		µg/L	1	6/3/2013 7:04:53 PM	7710
Phenanthrene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Phenol	3700	500		µg/L	10	6/3/2013 10:07:46 PM	7710
Pyrene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Pyridine	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/3/2013 7:04:53 PM	7710
Surr: 2,4,6-Tribromophenol	65.0	41.5-117		%REC	1	6/3/2013 7:04:53 PM	7710
Surr: 2-Fluorobiphenyl	61.6	29.1-112		%REC	1	6/3/2013 7:04:53 PM	7710
Surr: 2-Fluorophenol	45.3	11.9-98.6		%REC	1	6/3/2013 7:04:53 PM	7710
Surr: 4-Terphenyl-d14	76.8	46-111		%REC	1	6/3/2013 7:04:53 PM	7710
Surr: Nitrobenzene-d5	79.0	34.9-112		%REC	1	6/3/2013 7:04:53 PM	7710
Surr: Phenol-d5	52.9	17.5-88.3		%REC	1	6/3/2013 7:04:53 PM	7710
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Toluene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:50:00 PM

Lab ID: 1305A91-010

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Ethylbenzene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Methyl tert-butyl ether (MTBE)	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,2,4-Trimethylbenzene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,3,5-Trimethylbenzene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,2-Dichloroethane (EDC)	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,2-Dibromoethane (EDB)	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Naphthalene	ND	20	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1-Methylnaphthalene	ND	40	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
2-Methylnaphthalene	ND	40	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Acetone	200	100	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Bromobenzene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Bromodichloromethane	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Bromoform	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Bromomethane	ND	30	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
2-Butanone	ND	100	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Carbon disulfide	ND	100	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Carbon Tetrachloride	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Chlorobenzene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Chloroethane	ND	20	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Chloroform	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Chloromethane	ND	30	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
2-Chlorotoluene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
4-Chlorotoluene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
cis-1,2-DCE	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
cis-1,3-Dichloropropene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,2-Dibromo-3-chloropropane	ND	20	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Dibromochloromethane	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Dibromomethane	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,2-Dichlorobenzene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,3-Dichlorobenzene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,4-Dichlorobenzene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Dichlorodifluoromethane	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,1-Dichloroethane	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,1-Dichloroethene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,2-Dichloropropane	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,3-Dichloropropane	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
2,2-Dichloropropane	ND	20	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,1-Dichloropropene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Hexachlorobutadiene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
2-Hexanone	ND	100	p	µg/L	10	6/5/2013 5:14:42 PM	R11111

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 1:50:00 PM

Lab ID: 1305A91-010

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Isopropylbenzene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
4-Isopropyltoluene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
4-Methyl-2-pentanone	ND	100	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Methylene Chloride	ND	30	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
n-Butylbenzene	ND	30	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
n-Propylbenzene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
sec-Butylbenzene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Styrene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
tert-Butylbenzene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,1,1,2-Tetrachloroethane	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,1,2,2-Tetrachloroethane	ND	20	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Tetrachloroethene (PCE)	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
trans-1,2-DCE	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
trans-1,3-Dichloropropene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,2,3-Trichlorobenzene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,2,4-Trichlorobenzene	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,1,1-Trichloroethane	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,1,2-Trichloroethane	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Trichloroethene (TCE)	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Trichlorofluoromethane	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
1,2,3-Trichloropropane	ND	20	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Vinyl chloride	ND	10	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Xylenes, Total	ND	15	p	µg/L	10	6/5/2013 5:14:42 PM	R11111
Surr: 1,2-Dichloroethane-d4	102	70-130	p	%REC	10	6/5/2013 5:14:42 PM	R11111
Surr: 4-Bromofluorobenzene	95.8	69.5-130	p	%REC	10	6/5/2013 5:14:42 PM	R11111
Surr: Dibromofluoromethane	104	70-130	p	%REC	10	6/5/2013 5:14:42 PM	R11111
Surr: Toluene-d8	102	70-130	p	%REC	10	6/5/2013 5:14:42 PM	R11111
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JML
Conductivity	29000	0.10		µmhos/cm	10	5/31/2013 10:02:25 PM	R11023
SM4500-H+B: PH							Analyst: JML
pH	7.76	1.68	H	pH units	1	5/31/2013 1:45:37 PM	R11023

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 2:05:00 PM

Lab ID: 1305A91-011

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	42	10	*	mg/L	100	5/30/2013 1:24:30 AM	R10959
Chloride	310	50		mg/L	100	5/30/2013 1:24:30 AM	R10959
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	5/30/2013 1:12:05 AM	R10959
Bromide	6.1	1.0		mg/L	10	5/30/2013 1:12:05 AM	R10959
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	5/30/2013 1:12:05 AM	R10959
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	5/30/2013 1:12:05 AM	R10959
Sulfate	1700	50		mg/L	100	5/30/2013 1:24:30 AM	R10959
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.059	0.010		mg/L	5	6/7/2013 6:44:05 PM	R11180
Cadmium	ND	0.010		mg/L	5	6/7/2013 6:44:05 PM	R11180
Chromium	ND	0.030		mg/L	5	6/7/2013 6:44:05 PM	R11180
Copper	ND	0.030		mg/L	5	6/7/2013 6:44:05 PM	R11180
Iron	3.2	0.10	*	mg/L	5	6/10/2013 5:34:33 PM	R11208
Manganese	0.48	0.010	*	mg/L	5	6/7/2013 6:44:05 PM	R11180
Silver	ND	0.025		mg/L	5	6/7/2013 6:44:05 PM	R11180
Zinc	0.092	0.050		mg/L	5	6/7/2013 6:44:05 PM	R11180
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.056	0.0020		mg/L	1	6/11/2013 5:22:11 PM	7831
Cadmium	ND	0.0020		mg/L	1	6/11/2013 5:22:11 PM	7831
Chromium	0.017	0.0060		mg/L	1	6/11/2013 5:22:11 PM	7831
Copper	ND	0.0060		mg/L	1	6/11/2013 5:22:11 PM	7831
Iron	3.1	0.10	*	mg/L	5	6/11/2013 5:24:48 PM	7831
Manganese	0.44	0.0020	*	mg/L	1	6/11/2013 5:22:11 PM	7831
Silver	ND	0.025		mg/L	5	6/11/2013 5:24:48 PM	7831
Zinc	0.045	0.010		mg/L	1	6/11/2013 5:22:11 PM	7831
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.012	0.010	*	mg/L	10	6/3/2013 2:21:01 PM	R11035
Lead	ND	0.010		mg/L	10	6/3/2013 2:21:01 PM	R11035
Selenium	0.024	0.010		mg/L	10	6/3/2013 2:21:01 PM	R11035
Uranium	ND	0.010		mg/L	10	6/3/2013 2:21:01 PM	R11035
200.8 ICPMS METALS:TOTAL							Analyst: TES
Arsenic	0.013	0.0010	*	mg/L	1	6/12/2013 5:16:06 PM	7831
Lead	ND	0.0050		mg/L	5	6/19/2013 4:33:52 PM	7831
Selenium	0.029	0.0050		mg/L	5	6/19/2013 4:33:52 PM	7831
Uranium	ND	0.0010		mg/L	1	6/12/2013 5:16:06 PM	7831
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/11/2013 3:23:40 PM	7853

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Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 2:05:00 PM

Lab ID: 1305A91-011

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Acenaphthylene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Aniline	160	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Anthracene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Azobenzene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Benz(a)anthracene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Benzo(a)pyrene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Benzo(b)fluoranthene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Benzo(g,h,i)perylene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Benzo(k)fluoranthene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Benzoic acid	ND	40		µg/L	1	6/3/2013 7:35:57 PM	7710
Benzyl alcohol	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Bis(2-chloroethoxy)methane	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Bis(2-chloroethyl)ether	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Bis(2-chloroisopropyl)ether	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Bis(2-ethylhexyl)phthalate	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
4-Bromophenyl phenyl ether	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Butyl benzyl phthalate	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Carbazole	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
4-Chloro-3-methylphenol	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
4-Chloroaniline	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
2-Chloronaphthalene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
2-Chlorophenol	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
4-Chlorophenyl phenyl ether	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Chrysene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Di-n-butyl phthalate	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Di-n-octyl phthalate	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Dibenz(a,h)anthracene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Dibenzofuran	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
1,2-Dichlorobenzene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
1,3-Dichlorobenzene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
1,4-Dichlorobenzene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
3,3'-Dichlorobenzidine	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Diethyl phthalate	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Dimethyl phthalate	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
2,4-Dichlorophenol	ND	40		µg/L	1	6/3/2013 7:35:57 PM	7710
2,4-Dimethylphenol	380	20		µg/L	1	6/3/2013 7:35:57 PM	7710
4,6-Dinitro-2-methylphenol	ND	40		µg/L	1	6/3/2013 7:35:57 PM	7710
2,4-Dinitrophenol	ND	40		µg/L	1	6/3/2013 7:35:57 PM	7710
2,4-Dinitrotoluene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 2:05:00 PM

Lab ID: 1305A91-011

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,6-Dinitrotoluene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Fluoranthene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Fluorene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Hexachlorobenzene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Hexachlorobutadiene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Hexachlorocyclopentadiene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Hexachloroethane	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Indeno(1,2,3-cd)pyrene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Isophorone	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
1-Methylnaphthalene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
2-Methylnaphthalene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
2-Methylphenol	2200	1000		µg/L	50	6/3/2013 10:36:21 PM	7710
3+4-Methylphenol	4300	1000		µg/L	50	6/3/2013 10:36:21 PM	7710
N-Nitrosodi-n-propylamine	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
N-Nitrosodimethylamine	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
N-Nitrosodiphenylamine	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Naphthalene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
2-Nitroaniline	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
3-Nitroaniline	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
4-Nitroaniline	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Nitrobenzene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
2-Nitrophenol	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
4-Nitrophenol	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Pentachlorophenol	ND	40		µg/L	1	6/3/2013 7:35:57 PM	7710
Phenanthrene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Phenol	7400	1000		µg/L	50	6/3/2013 10:36:21 PM	7710
Pyrene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Pyridine	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
1,2,4-Trichlorobenzene	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
2,4,5-Trichlorophenol	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
2,4,6-Trichlorophenol	ND	20		µg/L	1	6/3/2013 7:35:57 PM	7710
Surr: 2,4,6-Tribromophenol	90.3	41.5-117		%REC	1	6/3/2013 7:35:57 PM	7710
Surr: 2-Fluorobiphenyl	74.5	29.1-112		%REC	1	6/3/2013 7:35:57 PM	7710
Surr: 2-Fluorophenol	67.4	11.9-98.6		%REC	1	6/3/2013 7:35:57 PM	7710
Surr: 4-Terphenyl-d14	87.0	46-111		%REC	1	6/3/2013 7:35:57 PM	7710
Surr: Nitrobenzene-d5	81.4	34.9-112		%REC	1	6/3/2013 7:35:57 PM	7710
Surr: Phenol-d5	54.1	17.5-88.3		%REC	1	6/3/2013 7:35:57 PM	7710
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
Toluene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 2:05:00 PM

Lab ID: 1305A91-011

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Ethylbenzene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
Naphthalene	ND	20		µg/L	10	6/5/2013 6:12:03 PM	R11111
1-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 6:12:03 PM	R11111
2-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 6:12:03 PM	R11111
Acetone	4600	500		µg/L	50	6/5/2013 5:43:24 PM	R11111
Bromobenzene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
Bromodichloromethane	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
Bromoform	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
Bromomethane	ND	30		µg/L	10	6/5/2013 6:12:03 PM	R11111
2-Butanone	470	100		µg/L	10	6/5/2013 6:12:03 PM	R11111
Carbon disulfide	ND	100		µg/L	10	6/5/2013 6:12:03 PM	R11111
Carbon Tetrachloride	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
Chlorobenzene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
Chloroethane	ND	20		µg/L	10	6/5/2013 6:12:03 PM	R11111
Chloroform	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
Chloromethane	ND	30		µg/L	10	6/5/2013 6:12:03 PM	R11111
2-Chlorotoluene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
4-Chlorotoluene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
cis-1,2-DCE	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/5/2013 6:12:03 PM	R11111
Dibromochloromethane	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
Dibromomethane	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,2-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,3-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,4-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
Dichlorodifluoromethane	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,1-Dichloroethane	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,1-Dichloroethene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,2-Dichloropropane	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,3-Dichloropropane	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
2,2-Dichloropropane	ND	20		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,1-Dichloropropene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
Hexachlorobutadiene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
2-Hexanone	ND	100		µg/L	10	6/5/2013 6:12:03 PM	R11111

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 2:05:00 PM

Lab ID: 1305A91-011

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Isopropylbenzene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
4-Isopropyltoluene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
4-Methyl-2-pentanone	ND	100		µg/L	10	6/5/2013 6:12:03 PM	R11111
Methylene Chloride	ND	30		µg/L	10	6/5/2013 6:12:03 PM	R11111
n-Butylbenzene	ND	30		µg/L	10	6/5/2013 6:12:03 PM	R11111
n-Propylbenzene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
sec-Butylbenzene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
Styrene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
tert-Butylbenzene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/5/2013 6:12:03 PM	R11111
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
trans-1,2-DCE	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,1,1-Trichloroethane	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,1,2-Trichloroethane	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
Trichloroethene (TCE)	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
Trichlorofluoromethane	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
1,2,3-Trichloropropane	ND	20		µg/L	10	6/5/2013 6:12:03 PM	R11111
Vinyl chloride	ND	10		µg/L	10	6/5/2013 6:12:03 PM	R11111
Xylenes, Total	ND	15		µg/L	10	6/5/2013 6:12:03 PM	R11111
Surr: 1,2-Dichloroethane-d4	96.6	70-130		%REC	10	6/5/2013 6:12:03 PM	R11111
Surr: 4-Bromofluorobenzene	95.5	69.5-130		%REC	10	6/5/2013 6:12:03 PM	R11111
Surr: Dibromofluoromethane	100	70-130		%REC	10	6/5/2013 6:12:03 PM	R11111
Surr: Toluene-d8	104	70-130		%REC	10	6/5/2013 6:12:03 PM	R11111
SM2510B: SPECIFIC CONDUCTANCE				Analyst: JML			
Conductivity	6000	0.010		µmhos/cm	1	5/31/2013 1:49:43 PM	R11023
SM4500-H+B: PH				Analyst: JML			
pH	7.49	1.68	H	pH units	1	5/31/2013 1:49:43 PM	R11023

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-1

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 2:25:00 PM

Lab ID: 1305A91-012

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	20	1.0	*	mg/L	10	5/30/2013 1:36:55 AM	R10959
Chloride	1000	50		mg/L	100	5/30/2013 1:49:19 AM	R10959
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	5/30/2013 1:36:55 AM	R10959
Bromide	1.2	1.0		mg/L	10	5/30/2013 1:36:55 AM	R10959
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	5/30/2013 1:36:55 AM	R10959
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	5/30/2013 1:36:55 AM	R10959
Sulfate	1200	50		mg/L	100	5/30/2013 1:49:19 AM	R10959
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.061	0.010		mg/L	5	6/7/2013 4:31:38 PM	R11180
Cadmium	ND	0.010		mg/L	5	6/7/2013 4:31:38 PM	R11180
Chromium	ND	0.030		mg/L	5	6/7/2013 4:31:38 PM	R11180
Copper	ND	0.030		mg/L	5	6/7/2013 6:48:10 PM	R11180
Iron	0.25	0.10		mg/L	5	6/10/2013 5:36:46 PM	R11208
Manganese	0.43	0.010	*	mg/L	5	6/7/2013 4:31:38 PM	R11180
Silver	ND	0.025		mg/L	5	6/7/2013 4:31:38 PM	R11180
Zinc	ND	0.050		mg/L	5	6/7/2013 4:31:38 PM	R11180
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.057	0.0020		mg/L	1	6/11/2013 5:27:03 PM	7831
Cadmium	ND	0.0020		mg/L	1	6/11/2013 5:27:03 PM	7831
Chromium	0.0099	0.0060		mg/L	1	6/11/2013 5:27:03 PM	7831
Copper	ND	0.0060		mg/L	1	6/11/2013 5:27:03 PM	7831
Iron	0.40	0.020	*	mg/L	1	6/11/2013 5:27:03 PM	7831
Manganese	0.39	0.0020	*	mg/L	1	6/11/2013 5:27:03 PM	7831
Silver	ND	0.025		mg/L	5	6/11/2013 5:29:41 PM	7831
Zinc	0.019	0.010		mg/L	1	6/11/2013 5:27:03 PM	7831
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	6/3/2013 2:23:21 PM	R11035
Lead	ND	0.010		mg/L	10	6/3/2013 2:23:21 PM	R11035
Selenium	ND	0.010		mg/L	10	6/3/2013 2:23:21 PM	R11035
Uranium	ND	0.010		mg/L	10	6/3/2013 2:23:21 PM	R11035
200.8 ICPMS METALS:TOTAL							Analyst: TES
Arsenic	0.0062	0.0010		mg/L	1	6/12/2013 5:20:05 PM	7831
Lead	ND	0.0050		mg/L	5	6/19/2013 4:36:19 PM	7831
Selenium	0.0077	0.0050		mg/L	5	6/19/2013 4:36:19 PM	7831
Uranium	0.0016	0.0010		mg/L	1	6/12/2013 5:20:05 PM	7831
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	6/11/2013 3:25:31 PM	7853

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

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-1

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 2:25:00 PM

Lab ID: 1305A91-012

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Acenaphthylene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Aniline	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Anthracene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Azobenzene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Benz(a)anthracene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Benzo(a)pyrene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Benzo(b)fluoranthene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Benzo(g,h,i)perylene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Benzo(k)fluoranthene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Benzoic acid	ND	60		µg/L	1	6/3/2013 3:58:14 PM	7710
Benzyl alcohol	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Bis(2-chloroethoxy)methane	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Bis(2-chloroethyl)ether	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Bis(2-chloroisopropyl)ether	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Bis(2-ethylhexyl)phthalate	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
4-Bromophenyl phenyl ether	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Butyl benzyl phthalate	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Carbazole	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
4-Chloro-3-methylphenol	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
4-Chloroaniline	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
2-Chloronaphthalene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
2-Chlorophenol	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
4-Chlorophenyl phenyl ether	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Chrysene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Di-n-butyl phthalate	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Di-n-octyl phthalate	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Dibenz(a,h)anthracene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Dibenzofuran	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
1,2-Dichlorobenzene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
1,3-Dichlorobenzene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
1,4-Dichlorobenzene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
3,3'-Dichlorobenzidine	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Diethyl phthalate	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Dimethyl phthalate	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
2,4-Dichlorophenol	ND	60		µg/L	1	6/3/2013 3:58:14 PM	7710
2,4-Dimethylphenol	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
4,6-Dinitro-2-methylphenol	ND	60		µg/L	1	6/3/2013 3:58:14 PM	7710
2,4-Dinitrophenol	ND	60		µg/L	1	6/3/2013 3:58:14 PM	7710
2,4-Dinitrotoluene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-1

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 2:25:00 PM

Lab ID: 1305A91-012

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,6-Dinitrotoluene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Fluoranthene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Fluorene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Hexachlorobenzene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Hexachlorobutadiene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Hexachlorocyclopentadiene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Hexachloroethane	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Indeno(1,2,3-cd)pyrene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Isophorone	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
1-Methylnaphthalene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
2-Methylnaphthalene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
2-Methylphenol	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
3+4-Methylphenol	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
N-Nitrosodi-n-propylamine	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
N-Nitrosodimethylamine	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
N-Nitrosodiphenylamine	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Naphthalene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
2-Nitroaniline	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
3-Nitroaniline	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
4-Nitroaniline	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Nitrobenzene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
2-Nitrophenol	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
4-Nitrophenol	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Pentachlorophenol	ND	60		µg/L	1	6/3/2013 3:58:14 PM	7710
Phenanthrene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Phenol	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Pyrene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Pyridine	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
1,2,4-Trichlorobenzene	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
2,4,5-Trichlorophenol	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
2,4,6-Trichlorophenol	ND	30		µg/L	1	6/3/2013 3:58:14 PM	7710
Surr: 2,4,6-Tribromophenol	58.2	41.5-117		%REC	1	6/3/2013 3:58:14 PM	7710
Surr: 2-Fluorobiphenyl	48.9	29.1-112		%REC	1	6/3/2013 3:58:14 PM	7710
Surr: 2-Fluorophenol	41.2	11.9-98.6		%REC	1	6/3/2013 3:58:14 PM	7710
Surr: 4-Terphenyl-d14	53.9	46-111		%REC	1	6/3/2013 3:58:14 PM	7710
Surr: Nitrobenzene-d5	55.1	34.9-112		%REC	1	6/3/2013 3:58:14 PM	7710
Surr: Phenol-d5	30.0	17.5-88.3		%REC	1	6/3/2013 3:58:14 PM	7710
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
Toluene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-1

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 2:25:00 PM

Lab ID: 1305A91-012

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Ethylbenzene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
Naphthalene	ND	20		µg/L	10	6/5/2013 6:40:47 PM	R11111
1-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 6:40:47 PM	R11111
2-Methylnaphthalene	ND	40		µg/L	10	6/5/2013 6:40:47 PM	R11111
Acetone	ND	100		µg/L	10	6/5/2013 6:40:47 PM	R11111
Bromobenzene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
Bromodichloromethane	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
Bromoform	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
Bromomethane	ND	30		µg/L	10	6/5/2013 6:40:47 PM	R11111
2-Butanone	ND	100		µg/L	10	6/5/2013 6:40:47 PM	R11111
Carbon disulfide	ND	100		µg/L	10	6/5/2013 6:40:47 PM	R11111
Carbon Tetrachloride	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
Chlorobenzene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
Chloroethane	ND	20		µg/L	10	6/5/2013 6:40:47 PM	R11111
Chloroform	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
Chloromethane	ND	30		µg/L	10	6/5/2013 6:40:47 PM	R11111
2-Chlorotoluene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
4-Chlorotoluene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
cis-1,2-DCE	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/5/2013 6:40:47 PM	R11111
Dibromochloromethane	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
Dibromomethane	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,2-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,3-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,4-Dichlorobenzene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
Dichlorodifluoromethane	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,1-Dichloroethane	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,1-Dichloroethene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,2-Dichloropropane	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,3-Dichloropropane	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
2,2-Dichloropropane	ND	20		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,1-Dichloropropene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
Hexachlorobutadiene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
2-Hexanone	ND	100		µg/L	10	6/5/2013 6:40:47 PM	R11111

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-1

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 2:25:00 PM

Lab ID: 1305A91-012

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Isopropylbenzene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
4-Isopropyltoluene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
4-Methyl-2-pentanone	ND	100		µg/L	10	6/5/2013 6:40:47 PM	R11111
Methylene Chloride	ND	30		µg/L	10	6/5/2013 6:40:47 PM	R11111
n-Butylbenzene	ND	30		µg/L	10	6/5/2013 6:40:47 PM	R11111
n-Propylbenzene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
sec-Butylbenzene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
Styrene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
tert-Butylbenzene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/5/2013 6:40:47 PM	R11111
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
trans-1,2-DCE	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,1,1-Trichloroethane	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,1,2-Trichloroethane	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
Trichloroethene (TCE)	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
Trichlorofluoromethane	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
1,2,3-Trichloropropane	ND	20		µg/L	10	6/5/2013 6:40:47 PM	R11111
Vinyl chloride	ND	10		µg/L	10	6/5/2013 6:40:47 PM	R11111
Xylenes, Total	ND	15		µg/L	10	6/5/2013 6:40:47 PM	R11111
Surr: 1,2-Dichloroethane-d4	98.0	70-130		%REC	10	6/5/2013 6:40:47 PM	R11111
Surr: 4-Bromofluorobenzene	95.3	69.5-130		%REC	10	6/5/2013 6:40:47 PM	R11111
Surr: Dibromofluoromethane	104	70-130		%REC	10	6/5/2013 6:40:47 PM	R11111
Surr: Toluene-d8	103	70-130		%REC	10	6/5/2013 6:40:47 PM	R11111
SM2510B: SPECIFIC CONDUCTANCE				Analyst: JML			
Conductivity	6200	0.010		µmhos/cm	1	5/31/2013 1:53:55 PM	R11023
SM4500-H+B: PH				Analyst: JML			
pH	8.05	1.68	H	pH units	1	5/31/2013 1:53:55 PM	R11023

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
				Page 60 of 87

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BW to EP-2

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 3:00:00 PM

Lab ID: 1305A91-013

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst: JRR		
Fluoride	ND	1.0		mg/L	10	5/30/2013 2:01:44 AM	R10959
Chloride	60	5.0		mg/L	10	5/30/2013 2:01:44 AM	R10959
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	5/30/2013 2:01:44 AM	R10959
Bromide	ND	1.0		mg/L	10	5/30/2013 2:01:44 AM	R10959
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	5/30/2013 2:01:44 AM	R10959
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	5/30/2013 2:01:44 AM	R10959
Sulfate	1700	50		mg/L	100	5/30/2013 2:38:57 AM	R10959
EPA METHOD 200.7: TOTAL METALS					Analyst: JLF		
Calcium	2.3	1.0		mg/L	1	6/11/2013 5:32:21 PM	7831
Magnesium	ND	1.0		mg/L	1	6/11/2013 5:32:21 PM	7831
Potassium	13	1.0		mg/L	1	6/12/2013 12:41:01 PM	7831
Sodium	1400	20		mg/L	20	6/12/2013 12:43:43 PM	7831

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
				Page 61 of 87

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 8:00:00 AM

Lab ID: 1305A91-014

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Toluene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Ethylbenzene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Naphthalene	ND	2.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1-Methylnaphthalene	ND	4.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
2-Methylnaphthalene	ND	4.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Acetone	ND	10		µg/L	1	6/5/2013 7:09:26 PM	R11111
Bromobenzene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Bromodichloromethane	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Bromoform	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Bromomethane	ND	3.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
2-Butanone	ND	10		µg/L	1	6/5/2013 7:09:26 PM	R11111
Carbon disulfide	ND	10		µg/L	1	6/5/2013 7:09:26 PM	R11111
Carbon Tetrachloride	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Chlorobenzene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Chloroethane	ND	2.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Chloroform	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Chloromethane	ND	3.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
2-Chlorotoluene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
4-Chlorotoluene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
cis-1,2-DCE	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Dibromochloromethane	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Dibromomethane	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,1-Dichloroethane	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,1-Dichloroethene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,2-Dichloropropane	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,3-Dichloropropane	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
2,2-Dichloropropane	ND	2.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,1-Dichloropropene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date: 5/28/2013 8:00:00 AM

Lab ID: 1305A91-014

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Hexachlorobutadiene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
2-Hexanone	ND	10		µg/L	1	6/5/2013 7:09:26 PM	R11111
Isopropylbenzene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
4-Isopropyltoluene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
4-Methyl-2-pentanone	ND	10		µg/L	1	6/5/2013 7:09:26 PM	R11111
Methylene Chloride	ND	3.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
n-Butylbenzene	ND	3.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
n-Propylbenzene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
sec-Butylbenzene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Styrene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
tert-Butylbenzene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
trans-1,2-DCE	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Trichlorofluoromethane	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Vinyl chloride	ND	1.0		µg/L	1	6/5/2013 7:09:26 PM	R11111
Xylenes, Total	ND	1.5		µg/L	1	6/5/2013 7:09:26 PM	R11111
Surr: 1,2-Dichloroethane-d4	92.3	70-130		%REC	1	6/5/2013 7:09:26 PM	R11111
Surr: 4-Bromofluorobenzene	95.8	69.5-130		%REC	1	6/5/2013 7:09:26 PM	R11111
Surr: Dibromofluoromethane	98.3	70-130		%REC	1	6/5/2013 7:09:26 PM	R11111
Surr: Toluene-d8	103	70-130		%REC	1	6/5/2013 7:09:26 PM	R11111

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date:

Lab ID: 1305A91-015

Matrix: TRIP BLANK

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Toluene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Ethylbenzene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Naphthalene	ND	2.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1-Methylnaphthalene	ND	4.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
2-Methylnaphthalene	ND	4.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Acetone	ND	10		µg/L	1	6/5/2013 7:38:08 PM	R11111
Bromobenzene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Bromodichloromethane	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Bromoform	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Bromomethane	ND	3.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
2-Butanone	ND	10		µg/L	1	6/5/2013 7:38:08 PM	R11111
Carbon disulfide	ND	10		µg/L	1	6/5/2013 7:38:08 PM	R11111
Carbon Tetrachloride	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Chlorobenzene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Chloroethane	ND	2.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Chloroform	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Chloromethane	ND	3.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
2-Chlorotoluene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
4-Chlorotoluene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
cis-1,2-DCE	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Dibromochloromethane	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Dibromomethane	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,1-Dichloroethane	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,1-Dichloroethene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,2-Dichloropropane	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,3-Dichloropropane	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
2,2-Dichloropropane	ND	2.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,1-Dichloropropene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A91

Date Reported: 6/25/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2013 SEMI-ANNUAL - PONDS

Collection Date:

Lab ID: 1305A91-015

Matrix: TRIP BLANK

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Hexachlorobutadiene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
2-Hexanone	ND	10		µg/L	1	6/5/2013 7:38:08 PM	R11111
Isopropylbenzene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
4-Isopropyltoluene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
4-Methyl-2-pentanone	ND	10		µg/L	1	6/5/2013 7:38:08 PM	R11111
Methylene Chloride	ND	3.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
n-Butylbenzene	ND	3.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
n-Propylbenzene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
sec-Butylbenzene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Styrene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
tert-Butylbenzene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
trans-1,2-DCE	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Trichlorofluoromethane	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Vinyl chloride	ND	1.0		µg/L	1	6/5/2013 7:38:08 PM	R11111
Xylenes, Total	ND	1.5		µg/L	1	6/5/2013 7:38:08 PM	R11111
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	1	6/5/2013 7:38:08 PM	R11111
Surr: 4-Bromofluorobenzene	101	69.5-130		%REC	1	6/5/2013 7:38:08 PM	R11111
Surr: Dibromofluoromethane	106	70-130		%REC	1	6/5/2013 7:38:08 PM	R11111
Surr: Toluene-d8	99.6	70-130		%REC	1	6/5/2013 7:38:08 PM	R11111

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	ICV	SampType: ICV			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	ICV	Batch ID: R11180			RunNo: 11180					
Prep Date:		Analysis Date: 6/7/2013			SeqNo: 316219		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	99.8	95	105			
Cadmium	0.50	0.0020	0.5000	0	99.9	95	105			
Chromium	0.50	0.0060	0.5000	0	99.9	95	105			
Copper	0.49	0.0060	0.5000	0	98.7	95	105			
Manganese	0.50	0.0020	0.5000	0	99.3	95	105			
Silver	0.52	0.0050	0.5000	0	104	95	105			
Zinc	0.51	0.010	0.5000	0	101	95	105			

Sample ID	ICB	SampType: ICB			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	ICB	Batch ID: R11180			RunNo: 11180					
Prep Date:		Analysis Date: 6/7/2013			SeqNo: 316220		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	-11.5	-100	99			
Cadmium	ND	0.0020	0.002000	0	-37.5	-100	99			
Chromium	ND	0.0060	0.006000	0	2.83	-100	99			
Copper	ND	0.0060	0.006000	0	-71.3	-100	99			
Manganese	ND	0.0020	0.002000	0	4.00	-100	99			
Silver	ND	0.0050	0.005000	0	10.6	-100	99			
Zinc	ND	0.010	0.01000	0	2.60	-100	99			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R11180			RunNo: 11180					
Prep Date:	Analysis Date: 6/7/2013			SeqNo: 316224		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								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11180		RunNo: 11180					
Prep Date:			Analysis Date: 6/7/2013		SeqNo: 316225		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	99.0	85	115			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	LCSW		Batch ID: R11180			RunNo: 11180				
Prep Date:	Analysis Date: 6/7/2013			SeqNo: 316225		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.50	0.0060	0.5000	0	99.9	85	115			
Copper	0.49	0.0060	0.5000	0	97.9	85	115			
Manganese	0.48	0.0020	0.5000	0	96.5	85	115			
Silver	0.11	0.0050	0.1000	0	105	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R11208			RunNo: 11208					
Prep Date:		Analysis Date: 6/10/2013			SeqNo: 316891		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								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11208		RunNo: 11208					
Prep Date:			Analysis Date: 6/10/2013		SeqNo: 316892		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	97.5	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.4	85	115			
Chromium	0.51	0.0060	0.5000	0	102	85	115			
Copper	0.48	0.0060	0.5000	0	97.0	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Manganese	0.51	0.0020	0.5000	0	101	85	115			
Zinc	0.48	0.010	0.5000	0	96.4	85	115			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	MB-7699		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 7699		RunNo: 11038					
Prep Date:	5/31/2013		Analysis Date: 6/3/2013		SeqNo: 312247		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-7699		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 7699		RunNo: 11038					
Prep Date:	5/31/2013		Analysis Date: 6/3/2013		SeqNo: 312248		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.0	85	115			
Cadmium	0.49	0.0020	0.5000	0	97.9	85	115			
Chromium	0.51	0.0060	0.5000	0	102	85	115			
Copper	0.47	0.0060	0.5000	0	94.8	85	115			
Iron	0.53	0.020	0.5000	0	105	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Silver	0.097	0.0050	0.1000	0	97.1	85	115			
Zinc	0.48	0.010	0.5000	0	96.1	85	115			

Sample ID	MB-7831	SampType: MBLK			TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID: 7831			RunNo: 11229					
Prep Date:	6/10/2013	Analysis Date: 6/11/2013			SeqNo: 317427		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								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	LCS-7831			SampType:	LCS			TestCode: EPA Method 200.7: Total Metals			
Client ID:	LCSW			Batch ID:	7831			RunNo: 11229			
Prep Date:				Analysis Date:	6/11/2013			SeqNo:	317428		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	0.49	0.0020	0.5000	0	98.1	85	115				
Cadmium	0.50	0.0020	0.5000	0	99.5	85	115				
Calcium	50	1.0	50.00	0	101	85	115				
Chromium	0.52	0.0060	0.5000	0	103	85	115				
Copper	0.49	0.0060	0.5000	0	98.6	85	115				
Iron	0.51	0.020	0.5000	0	101	85	115				
Magnesium	51	1.0	50.00	0	102	85	115				
Manganese	0.51	0.0020	0.5000	0	101	85	115				
Potassium	49	1.0	50.00	0	98.5	85	115				
Silver	0.097	0.0050	0.1000	0	97.5	85	115				
Sodium	50	1.0	50.00	0	99.1	85	115				
Zinc	0.49	0.010	0.5000	0	97.5	85	115				

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11035		RunNo: 11035					
Prep Date:			Analysis Date: 6/3/2013		SeqNo: 312170		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	102	85	115			
Lead	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.025	0.0010	0.02500	0	99.3	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R11035		RunNo: 11035					
Prep Date:			Analysis Date: 6/3/2013		SeqNo: 312171		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	0.026	0.0010	0.02500	0	102	85	115			
Selenium	0.025	0.0010	0.02500	0	99.4	85	115			
Uranium	0.025	0.0010	0.02500	0	101	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R11035			RunNo: 11035					
Prep Date:		Analysis Date: 6/3/2013			SeqNo: 312172		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R11035			RunNo: 11035					
Prep Date:		Analysis Date: 6/3/2013			SeqNo: 312173		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	1305A91-004CLLMS				SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total		
Client ID:	EP-11				Batch ID:	7699		RunNo:	11060		
Prep Date:	5/31/2013				Analysis Date:	6/4/2013		SeqNo:	312975		Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.032	0.0050	0.02500	0	129	70	130				

Sample ID	MB-7699				SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total		
Client ID:	PBW				Batch ID:	7699		RunNo:	11060		
Prep Date:	5/31/2013				Analysis Date:	6/4/2013		SeqNo:	312986		Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	ND	0.0010									
Selenium	ND	0.0010									
Uranium	ND	0.0010									

Sample ID	1305A91-007CLLMS				SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total		
Client ID:	EP-6				Batch ID:	7699		RunNo:	11099		
Prep Date:	5/31/2013				Analysis Date:	6/5/2013		SeqNo:	314041		Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.049	0.010	0.02500	0.02293	106	70	130				

Sample ID	1305A91-007CLLMS				SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total		
Client ID:	EP-6				Batch ID:	7699		RunNo:	11099		
Prep Date:	5/31/2013				Analysis Date:	6/5/2013		SeqNo:	314042		Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.035	0.0020	0.02500	0.001364	133	70	130			S	

Sample ID	1305A91-007CLLMS				SampType:	MSDLL		TestCode:	200.8 ICPMS Metals:Total		
Client ID:	EP-6				Batch ID:	7699		RunNo:	11099		
Prep Date:	5/31/2013				Analysis Date:	6/5/2013		SeqNo:	314043		Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.048	0.010	0.02500	0.02293	100	70	130	3.00	20		

Sample ID	1305A91-007CLLMS				SampType:	MSDLL		TestCode:	200.8 ICPMS Metals:Total		
Client ID:	EP-6				Batch ID:	7699		RunNo:	11099		
Prep Date:	5/31/2013				Analysis Date:	6/5/2013		SeqNo:	314044		Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.035	0.0020	0.02500	0.001364	133	70	130	0.105	20	S	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	MB-7831		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 7831		RunNo: 11281					
Prep Date:	6/10/2013		Analysis Date: 6/12/2013		SeqNo: 318860		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB-7699		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 7699		RunNo: 11411					
Prep Date:	5/31/2013		Analysis Date: 6/19/2013		SeqNo: 322831		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	MB-7734	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	7734	RunNo:	11065					
Prep Date:	6/4/2013	Analysis Date:	6/4/2013	SeqNo:	313014	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-7734	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	7734	RunNo:	11065					
Prep Date:	6/4/2013	Analysis Date:	6/4/2013	SeqNo:	313015	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.8	80	120			

Sample ID	MB-7853	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	7853	RunNo:	11240					
Prep Date:	6/11/2013	Analysis Date:	6/11/2013	SeqNo:	317680	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-7853	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	7853	RunNo:	11240					
Prep Date:	6/11/2013	Analysis Date:	6/11/2013	SeqNo:	317681	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0047	0.00020	0.005000	0	94.9	80	120			

Sample ID	1305A91-002CMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	EP-8	Batch ID:	7853	RunNo:	11240					
Prep Date:	6/11/2013	Analysis Date:	6/11/2013	SeqNo:	317709	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0045	0.0010	0.005000	0	89.1	75	125			

Sample ID	1305A91-002CMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury					
Client ID:	EP-8	Batch ID:	7853	RunNo:	11240					
Prep Date:	6/11/2013	Analysis Date:	6/11/2013	SeqNo:	317710	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0044	0.0010	0.005000	0	87.2	75	125	2.21	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R10959		RunNo: 10959							
Prep Date:	Analysis Date: 5/29/2013		SeqNo: 309832		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R10959		RunNo: 10959							
Prep Date:	Analysis Date: 5/29/2013		SeqNo: 309833		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	99.7	90	110			
Chloride	4.8	0.50	5.000	0	96.7	90	110			
Nitrogen, Nitrite (As N)	0.94	0.10	1.000	0	94.5	90	110			
Bromide	2.4	0.10	2.500	0	97.4	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.4	90	110			
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	101	90	110			
Sulfate	9.7	0.50	10.00	0	97.0	90	110			

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R10959		RunNo: 10959							
Prep Date:	Analysis Date: 5/29/2013		SeqNo: 309886		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R10959		RunNo: 10959							
Prep Date:	Analysis Date: 5/29/2013		SeqNo: 309887		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	98.5	90	110			
Chloride	4.7	0.50	5.000	0	93.9	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 300.0: Anions				
Client ID:	LCSW		Batch ID: R10959			RunNo: 10959				
Prep Date:			Analysis Date: 5/29/2013			SeqNo: 309887		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	0.92	0.10	1.000	0	92.2	90	110			
Bromide	2.4	0.10	2.500	0	95.3	90	110			
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	96.3	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.1	90	110			
Sulfate	9.4	0.50	10.00	0	94.3	90	110			

Sample ID	1305A91-013AMS		SampType: MS		TestCode: EPA Method 300.0: Anions					
Client ID:	BW to EP-2		Batch ID: R10959		RunNo: 10959					
Prep Date:			Analysis Date: 5/30/2013		SeqNo: 309911		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	5.7	1.0	5.000	0.8580	96.9	76.6	110			
Chloride	110	5.0	50.00	60.11	102	87.8	111			
Nitrogen, Nitrite (As N)	9.1	1.0	10.00	0	91.3	72.5	111			
Bromide	24	1.0	25.00	0	95.3	83.3	107			
Nitrogen, Nitrate (As N)	24	1.0	25.00	0.4370	96.2	90.4	113			
Phosphorus, Orthophosphate (As P	46	5.0	50.00	0	91.3	74.5	115			

Sample ID	1305A91-013AMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	BW to EP-2		Batch ID: R10959		RunNo: 10959					
Prep Date:			Analysis Date: 5/30/2013		SeqNo: 309912		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	5.7	1.0	5.000	0.8580	95.9	76.6	110	0.828	20	
Chloride	110	5.0	50.00	60.11	102	87.8	111	0.0162	20	
Nitrogen, Nitrite (As N)	9.2	1.0	10.00	0	91.8	72.5	111	0.546	20	
Bromide	24	1.0	25.00	0	95.0	83.3	107	0.290	20	
Nitrogen, Nitrate (As N)	25	1.0	25.00	0.4370	96.8	90.4	113	0.615	20	
Phosphorus, Orthophosphate (As P	46	5.0	50.00	0	92.4	74.5	115	1.22	20	

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R11032			RunNo: 11032					
Prep Date:		Analysis Date: 5/31/2013			SeqNo: 311943		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R11032			RunNo: 11032					
Prep Date:			Analysis Date: 5/31/2013			SeqNo: 311944		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	4.7	0.50	5.000	0	93.2	90	110				

Sample ID	MB		SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW		Batch ID: R11289			RunNo: 11289					
Prep Date:			Analysis Date: 6/12/2013			SeqNo: 319042		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	0.50									
Sulfate	ND	0.50									

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R11289			RunNo: 11289					
Prep Date:			Analysis Date: 6/12/2013			SeqNo: 319043		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	4.6	0.50	5.000	0	91.9	90	110				
Sulfate	9.3	0.50	10.00	0	92.5	90	110				

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R11111			RunNo: 11111					
Prep Date:		Analysis Date: 6/5/2013			SeqNo: 314370		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								
1,1-Dichloropropene	ND	1.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R11111			RunNo: 11111					
Prep Date:		Analysis Date: 6/5/2013			SeqNo: 314370		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	69.5	130			
Surr: Dibromofluoromethane	10		10.00		99.9	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID	100NG LCS	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R11111			RunNo: 11111					
Prep Date:		Analysis Date: 6/5/2013			SeqNo: 314372		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	106	70	130			
Toluene	21	1.0	20.00	0	106	80	120			
Chlorobenzene	19	1.0	20.00	0	97.3	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.5	85.8	133			
Trichloroethene (TCE)	20	1.0	20.00	0	98.7	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	100NG LCS		SampType:	LCS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	LCSW		Batch ID:	R11111		RunNo:	11111			
Prep Date:			Analysis Date:	6/5/2013		SeqNo:	314372		Units:	µg/L
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	9.1		10.00		90.7	69.5	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	1305a91-001a ms		SampType:	MS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	EP-9		Batch ID:	R11111		RunNo:	11111			
Prep Date:			Analysis Date:	6/5/2013		SeqNo:	314375		Units:	µg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	200	10	200.0	0	98.1	70	130			
Toluene	200	10	200.0	0	101	68.5	128			
Chlorobenzene	180	10	200.0	0	91.4	70	130			
1,1-Dichloroethene	190	10	200.0	0	95.1	70	130			
Trichloroethene (TCE)	190	10	200.0	0	93.1	61.3	102			
Surr: 1,2-Dichloroethane-d4	100		100.0		101	70	130			
Surr: 4-Bromofluorobenzene	94		100.0		94.3	69.5	130			
Surr: Dibromofluoromethane	100		100.0		102	70	130			
Surr: Toluene-d8	100		100.0		103	70	130			

Sample ID	1305a91-001a msd		SampType:	MSD		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	EP-9		Batch ID:	R11111		RunNo:	11111			
Prep Date:			Analysis Date:	6/5/2013		SeqNo:	314376		Units:	µg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	220	10	200.0	0	110	70	130	11.3	20	
Toluene	220	10	200.0	0	111	68.5	128	9.44	20	
Chlorobenzene	200	10	200.0	0	101	70	130	9.94	20	
1,1-Dichloroethene	200	10	200.0	0	102	70	130	6.98	20	
Trichloroethene (TCE)	210	10	200.0	0	104	61.3	102	10.7	20	S
Surr: 1,2-Dichloroethane-d4	98		100.0		97.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	97		100.0		97.4	69.5	130	0	0	
Surr: Dibromofluoromethane	100		100.0		100	70	130	0	0	
Surr: Toluene-d8	100		100.0		103	70	130	0	0	

Sample ID	rb2		SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	PBW		Batch ID:	R11111		RunNo:	11111			
Prep Date:			Analysis Date:	6/5/2013		SeqNo:	314398		Units:	µg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	rb2	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R11111	RunNo:	11111					
Prep Date:		Analysis Date:	6/5/2013	SeqNo:	314398	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID rb2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R11111			RunNo: 11111						
Prep Date:	Analysis Date: 6/5/2013			SeqNo: 314398		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		98.8	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.5	69.5	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID 100ng lcs ii	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R11111			RunNo: 11111						
Prep Date:	Analysis Date: 6/6/2013			SeqNo: 314402		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	107	70	130			
Toluene	22	1.0	20.00	0	108	80	120			
Chlorobenzene	20	1.0	20.00	0	100	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	100	85.8	133			
Trichloroethene (TCE)	20	1.0	20.00	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.4	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	100ng lcs ii	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R11111			RunNo: 11111					
Prep Date:		Analysis Date: 6/6/2013			SeqNo: 314402		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	9.6		10.00		96.4	69.5	130			
Surr: Dibromofluoromethane	9.7		10.00		97.5	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	mb-7710	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	7710	RunNo:	11043					
Prep Date:	6/3/2013	Analysis Date:	6/3/2013	SeqNo:	312336	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								
2,4-Dinitrotoluene	ND	10								

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	mb-7710	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	7710	RunNo:	11043					
Prep Date:	6/3/2013	Analysis Date:	6/3/2013	SeqNo:	312336	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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: 2,4,6-Tribromophenol	120		200.0		61.0	41.5	117			
Surr: 2-Fluorobiphenyl	76		100.0		75.9	29.1	112			
Surr: 2-Fluorophenol	100		200.0		51.3	11.9	98.6			
Surr: 4-Terphenyl-d14	89		100.0		89.1	46	111			
Surr: Nitrobenzene-d5	81		100.0		81.5	34.9	112			
Surr: Phenol-d5	93		200.0		46.6	17.5	88.3			

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	lcs-7710		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 7710		RunNo: 11043					
Prep Date:	6/3/2013		Analysis Date: 6/3/2013		SeqNo: 312337		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	62	10	100.0	0	62.0	53.3	92.5			
4-Chloro-3-methylphenol	130	10	200.0	0	66.1	55.9	93.9			
2-Chlorophenol	120	10	200.0	0	60.4	51.1	85.8			
1,4-Dichlorobenzene	54	10	100.0	0	54.3	41.5	86.7			
2,4-Dinitrotoluene	67	10	100.0	0	66.6	57.5	102			
N-Nitrosodi-n-propylamine	64	10	100.0	0	64.1	52.1	99.7			
4-Nitrophenol	73	10	200.0	0	36.7	27.2	53			
Pentachlorophenol	90	20	200.0	0	45.0	33.7	77.7			
Phenol	78	10	200.0	0	39.1	23.3	66.3			
Pyrene	67	10	100.0	0	67.2	57	88.7			
1,2,4-Trichlorobenzene	61	10	100.0	0	60.6	46.7	87.8			
Surr: 2,4,6-Tribromophenol	170		200.0		85.1	41.5	117			
Surr: 2-Fluorobiphenyl	72		100.0		72.2	29.1	112			
Surr: 2-Fluorophenol	120		200.0		60.4	11.9	98.6			
Surr: 4-Terphenyl-d14	87		100.0		87.3	46	111			
Surr: Nitrobenzene-d5	72		100.0		71.6	34.9	112			
Surr: Phenol-d5	87		200.0		43.4	17.5	88.3			

Sample ID	lcsd-7710		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 7710		RunNo: 11043					
Prep Date:	6/3/2013		Analysis Date: 6/3/2013		SeqNo: 312338		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	63	10	100.0	0	63.4	53.3	92.5	2.17	25	
4-Chloro-3-methylphenol	140	10	200.0	0	71.0	55.9	93.9	7.18	32.7	
2-Chlorophenol	120	10	200.0	0	60.6	51.1	85.8	0.281	20	
1,4-Dichlorobenzene	58	10	100.0	0	57.7	41.5	86.7	6.03	20	
2,4-Dinitrotoluene	75	10	100.0	0	74.7	57.5	102	11.5	29.9	
N-Nitrosodi-n-propylamine	66	10	100.0	0	65.9	52.1	99.7	2.68	23.1	
4-Nitrophenol	74	10	200.0	0	37.2	27.2	53	1.11	40.5	
Pentachlorophenol	100	20	200.0	0	50.3	33.7	77.7	11.1	37.3	
Phenol	76	10	200.0	0	38.2	23.3	66.3	2.25	20	
Pyrene	75	10	100.0	0	75.3	57	88.7	11.3	26.5	
1,2,4-Trichlorobenzene	64	10	100.0	0	64.2	46.7	87.8	5.71	27.2	
Surr: 2,4,6-Tribromophenol	170		200.0		84.4	41.5	117	0	0	
Surr: 2-Fluorobiphenyl	71		100.0		71.4	29.1	112	0	0	
Surr: 2-Fluorophenol	120		200.0		59.6	11.9	98.6	0	0	
Surr: 4-Terphenyl-d14	89		100.0		88.7	46	111	0	0	
Surr: Nitrobenzene-d5	72		100.0		72.5	34.9	112	0	0	
Surr: Phenol-d5	87		200.0		43.6	17.5	88.3	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	1411 uS icv	SampType:	icv	TestCode:	SM2510B: Specific Conductance					
Client ID:	ICV	Batch ID:	R11023	RunNo:	11023					
Prep Date:		Analysis Date:	5/31/2013	SeqNo:	311615	Units:	µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	1400	0.010	1411	0	102	90	110			

Sample ID	1305a91-010b dup	SampType:	dup	TestCode:	SM2510B: Specific Conductance					
Client ID:	EP-3	Batch ID:	R11023	RunNo:	11023					
Prep Date:		Analysis Date:	5/31/2013	SeqNo:	311676	Units:	µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	30000	0.10						2.31	20	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A91

25-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI-ANNUAL - PONDS

Sample ID	7.00 pH icv		SampType: icv		TestCode: SM4500-H+B: pH					
Client ID:	ICV		Batch ID: R11023		RunNo: 11023					
Prep Date:			Analysis Date: 5/31/2013		SeqNo: 311695		Units: pH units			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	6.98	1.68								

Sample ID	1305a91-001b dup	SampType:	dup	TestCode:	SM4500-H+B: pH					
Client ID:	EP-9	Batch ID:	R11023	RunNo:	11023					
Prep Date:		Analysis Date:	5/31/2013	SeqNo:	311697	Units:	pH units			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.56	1.68								H

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1305A91

RcptNo: 1

Received by/date:

Logged By: **Michelle Garcia**

5/29/2013 1:46:00 PM

Michelle Garcia

Completed By: Michelle Garcia

5/29/2013 2:13:10 PM

Michelle Garcia

Reviewed By:

05/29/13

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples?	Yes ☒	No ☐	NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C	Yes ☒	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☒	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☒	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☒	No ☒	
9. Was preservative added to bottles? -COO13 -O10C - ADDED 1 mL YES -COO10 -O10B - ADDED 0.4 mL HNO ₃ FOR ACCEPTABLE PH	Yes ☒	No ☒	NA ☐
10. VOA vials have zero headspace? -O15 = BOTH VOAs HAVE HEADSPACE	Yes ☒	No ☐	No VOA Vials ☐
11. Were any sample containers received broken? 05/29/13	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 ☐	Adjusted? ☐
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 ☐	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	Not Present			

Chain-of-Custody Record

Client: Western Refining Company

Gallup Refinery

Mailing Address:

RT 3 BOX 7, GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

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

Sampler: C. JOHNSON

On Ice: ☐ Yes ☐ No

Sample Temperature:

Date Time Matrix Sample Request ID

5/28/2013 1500 H20 BW to EP-2

5/28/2013 800 H20 FIELD BLANK

TRIP BLANK

Container Type and #

HEAL No. 1305A91

-013

-014

-015

Preservative Type

8260+MTBE

MAJOR CATIONS/ANIONS

Air Bubbles (Y or N)



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date: 5/29/13

Relinquished by:

[Signature]

Received by:

[Signature]

Remarks:

05/29/13 1346

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



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

June 12, 2013

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 2013 SEMI ANNUAL PONDS

OrderNo.: 1305A89

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 12 sample(s) on 5/29/2013 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.

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 1305A89

Date Reported: 6/12/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-1

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 5/29/2013 7:30:00 AM

Lab ID: 1305A89-001

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SUB
Biochemical Oxygen Demand	75	5.0		mg/L	1	6/4/2013	R11075
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	10	10		CFU/100ml	10	5/30/2013 3:28:00 PM	7658
EPA METHOD 410.1: COD							Analyst: SUB
Chemical Oxygen Demand	310	10		mg/L	1	6/5/2013	R11247

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A89

Date Reported: 6/12/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 5/29/2013 7:40:00 AM

Lab ID: 1305A89-002

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SUB
Biochemical Oxygen Demand	210	5.0		mg/L	1	6/4/2013	R11075
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	31	10		CFU/100ml	10	5/30/2013 3:28:00 PM	7658
EPA METHOD 410.1: COD							Analyst: SUB
Chemical Oxygen Demand	700	10		mg/L	1	6/5/2013	R11247

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A89

Date Reported: 6/12/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 5/29/2013 7:50:00 AM

Lab ID: 1305A89-003

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SUB
Biochemical Oxygen Demand	120	5.0		mg/L	1	6/4/2013	R11075
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	<10	10		CFU/100ml	10	5/30/2013 3:28:00 PM	7658
EPA METHOD 410.1: COD							Analyst: SUB
Chemical Oxygen Demand	1600	10		mg/L	1	6/6/2013	R11247

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A89

Date Reported: 6/12/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 5/29/2013 8:00:00 AM

Lab ID: 1305A89-004

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SUB
Biochemical Oxygen Demand	96	5.0		mg/L	1	6/4/2013	R11075
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	<10	10		CFU/100ml	10	5/30/2013 3:28:00 PM	7658
EPA METHOD 410.1: COD							Analyst: SUB
Chemical Oxygen Demand	700	10		mg/L	1	6/6/2013	R11247

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A89

Date Reported: 6/12/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 5/29/2013 8:10:00 AM

Lab ID: 1305A89-005

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SUB
Biochemical Oxygen Demand	66	5.0		mg/L	1	6/4/2013	R11075
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	<10	10		CFU/100ml	10	5/30/2013 3:28:00 PM	7658
EPA METHOD 410.1: COD							Analyst: SUB
Chemical Oxygen Demand	600	10		mg/L	1	6/6/2013	R11247

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A89

Date Reported: 6/12/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 5/29/2013 8:20:00 AM

Lab ID: 1305A89-006

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SUB
Biochemical Oxygen Demand	46	5.0		mg/L	1	6/4/2013	R11075
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	<10	10		CFU/100ml	10	5/30/2013 3:28:00 PM	7658
EPA METHOD 410.1: COD							Analyst: SUB
Chemical Oxygen Demand	710	10		mg/L	1	6/7/2013	R11247

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A89

Date Reported: 6/12/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 5/29/2013 8:30:00 AM

Lab ID: 1305A89-007

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SUB
Biochemical Oxygen Demand	19	5.0	H	mg/L	1	6/9/2013	R11075
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	<10	10		CFU/100ml	10	5/30/2013 3:28:00 PM	7658
EPA METHOD 410.1: COD							Analyst: SUB
Chemical Oxygen Demand	6000	10		mg/L	1	6/5/2013	R11247

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A89

Date Reported: 6/12/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 5/29/2013 8:40:00 AM

Lab ID: 1305A89-008

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SUB
Biochemical Oxygen Demand	22	5.0	H	mg/L	1	6/9/2013	R11075
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	<10	10		CFU/100ml	10	5/30/2013 3:28:00 PM	7658
EPA METHOD 410.1: COD							Analyst: SUB
Chemical Oxygen Demand	4600	10		mg/L	1	6/5/2013	R11247

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A89

Date Reported: 6/12/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 5/29/2013 8:50:00 AM

Lab ID: 1305A89-009

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SUB
Biochemical Oxygen Demand	19	5.0	H	mg/L	1	6/9/2013	R11075
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	<10	10		CFU/100ml	10	5/30/2013 3:28:00 PM	7658
EPA METHOD 410.1: COD							Analyst: SUB
Chemical Oxygen Demand	7400	10		mg/L	1	6/5/2013	R11247

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A89

Date Reported: 6/12/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 5/29/2013 9:00:00 AM

Lab ID: 1305A89-010

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SUB
Biochemical Oxygen Demand	30	5.0		mg/L	1	6/4/2013	R11075
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	<10	10		CFU/100ml	10	5/30/2013 3:28:00 PM	7658
EPA METHOD 410.1: COD							Analyst: SUB
Chemical Oxygen Demand	610	10		mg/L	1	6/6/2013	R11247

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A89

Date Reported: 6/12/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 5/29/2013 9:10:00 AM

Lab ID: 1305A89-011

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SUB
Biochemical Oxygen Demand	100	5.0		mg/L	1	6/4/2013	R11075
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	<10	10		CFU/100ml	10	5/30/2013 3:28:00 PM	7658
EPA METHOD 410.1: COD							Analyst: SUB
Chemical Oxygen Demand	1400	10		mg/L	1	6/6/2013	R11247

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305A89

Date Reported: 6/12/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 5/29/2013 9:20:00 AM

Lab ID: 1305A89-012

Matrix: AQUEOUS

Received Date: 5/29/2013 1:46:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SUB
Biochemical Oxygen Demand	260	5.0		mg/L	1	6/4/2013	R11075
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	31	10		CFU/100ml	10	5/30/2013 3:28:00 PM	7658
EPA METHOD 410.1: COD							Analyst: SUB
Chemical Oxygen Demand	770	10		mg/L	1	6/5/2013	R11247

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A89

12-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI ANNUAL PONDS

Sample ID	MB-R11075		SampType:	MBLK		TestCode:	SM5210B: BOD				
Client ID:	PBW		Batch ID:	R11075		RunNo:	11075				
Prep Date:			Analysis Date:	6/4/2013		SeqNo:	313360		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Biochemical Oxygen Demand	ND	2.0									

Sample ID	LCS-R11075		SampType: LCS		TestCode: SM5210B: BOD					
Client ID:	LCSW		Batch ID: R11075		RunNo: 11075					
Prep Date:			Analysis Date: 6/4/2013		SeqNo: 313361		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	210	2.0	198.0	0	108	84.6	115.4			

Sample ID	LCS-R11075		SampType: LCS		TestCode: SM5210B: BOD					
Client ID:	LCSW		Batch ID: R11075		RunNo: 11075					
Prep Date:			Analysis Date: 6/4/2013		SeqNo: 313376		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	200	2.0	198.0	0	103	84.6	115.4			

Sample ID	LCS-R11075			SampType:	LCS		TestCode:	SM5210B: BOD			
Client ID:	LCSW			Batch ID:	R11075		RunNo:	11075			
Prep Date:				Analysis Date:	6/4/2013		SeqNo:	313377		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Biochemical Oxygen Demand	230	2.0	198.0	0	115	84.6	115.4				

Sample ID	LCS-R11075		SampType: LCS		TestCode: SM5210B: BOD					
Client ID:	LCSW		Batch ID: R11075		RunNo: 11075					
Prep Date:			Analysis Date: 6/4/2013		SeqNo: 313378		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	200	2.0	198.0	0	103	84.6	115.4			

Sample ID	LCS-R11075		SampType: LCS		TestCode: SM5210B: BOD					
Client ID:	LCSW		Batch ID: R11075		RunNo: 11075					
Prep Date:			Analysis Date: 6/4/2013		SeqNo: 313379		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	200	2.0	198.0	0	103	84.6	115.4			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 O RSD is greater than RSDlimit
 R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 P Sample pH greater than 2 for VOA and TOC only.
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A89

12-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI ANNUAL PONDS

Sample ID	LCS-R11075		SampType: LCS		TestCode: SM5210B: BOD					
Client ID:	LCSW		Batch ID: R11075		RunNo: 11075					
Prep Date:			Analysis Date: 6/4/2013		SeqNo: 313380		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	230	2.0	198.0	0	114	84.6	115.4			

Sample ID	LCS-R11075		SampType: LCS		TestCode: SM5210B: BOD					
Client ID:	LCSW		Batch ID: R11075		RunNo: 11075					
Prep Date:			Analysis Date: 6/4/2013		SeqNo: 313381		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	230	2.0	198.0	0	117	84.6	115.4			S

Sample ID	LCS-R11075		SampType: LCS		TestCode: SM5210B: BOD					
Client ID:	LCSW		Batch ID: R11075		RunNo: 11075					
Prep Date:			Analysis Date: 6/4/2013		SeqNo: 313382		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	210	2.0	198.0	0	108	84.6	115.4			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A89

12-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI ANNUAL PONDS

Sample ID	MB-R11247		SampType: MBLK		TestCode: EPA Method 410.1: COD					
Client ID:	PBW		Batch ID: R11247		RunNo: 11247					
Prep Date:			Analysis Date: 6/5/2013		SeqNo: 317873		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	<10	10								

Sample ID	LCS-R11247		SampType: LCS		TestCode: EPA Method 410.1: COD					
Client ID:	LCSW		Batch ID: R11247		RunNo: 11247					
Prep Date:			Analysis Date: 6/5/2013		SeqNo: 317874		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	190	10	183.0	0	105	90	110			

Sample ID	LCS-R11247		SampType: LCS		TestCode: EPA Method 410.1: COD					
Client ID:	LCSW		Batch ID: R11247		RunNo: 11247					
Prep Date:			Analysis Date: 6/5/2013		SeqNo: 317875		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	200	10	183.0	0	107	90	110			

Sample ID	LCS-R11247		SampType: LCS		TestCode: EPA Method 410.1: COD					
Client ID:	LCSW		Batch ID: R11247		RunNo: 11247					
Prep Date:			Analysis Date: 6/5/2013		SeqNo: 317876		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	180	10	183.0	0	98.9	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305A89

12-Jun-13

Client: Western Refining Southwest, Gallup

Project: 2013 SEMI ANNUAL PONDS

Sample ID	MB-7658	SampType:	MBLK	TestCode:	SM 9223B	Fecal Indicator:	E. coli	MPN		
Client ID:	PBW	Batch ID:	7658	RunNo:	10970					
Prep Date:	5/29/2013	Analysis Date:	5/30/2013	SeqNo:	310209	Units:	CFU/100ml			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
E. Coli	<1	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1305A89

RcptNo: 1

Received by/date:

AT

05/29/13

Logged By: Lindsay Mangin

5/29/2013 1:46:00 PM

Lindsay Mangin

Completed By: Lindsay Mangin

5/29/2013 1:50:07 PM

Lindsay Mangin

Reviewed By:

[Signature]

05/29/13

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH: 12
(<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted? *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 ☐ Checked by: *[Signature]*

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via:

eMail

Phone

Fax

In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 14, 2013

Cheryl Johnson
Western Refining Company
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX

RE: 2013 SEMI ANNUAL PONDS

OrderNo.: 1310878

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 15 sample(s) on 10/17/2013 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 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-1

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 3:30:00 PM

Lab ID: 1310878-001

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	21	1.0	*	mg/L	10	10/18/2013 11:07:34 AM	R14218
Chloride	1300	50		mg/L	100	10/18/2013 11:19:58 AM	R14218
Bromide	1.5	1.0		mg/L	10	10/18/2013 11:07:34 AM	R14218
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	10/18/2013 11:07:34 AM	R14218
Sulfate	2000	50		mg/L	100	10/18/2013 11:19:58 AM	R14218
Nitrate+Nitrite as N	ND	2.0		mg/L	10	10/18/2013 6:09:27 PM	R14218
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.10	0.0020		mg/L	1	10/29/2013 3:03:58 PM	R14439
Cadmium	ND	0.0020		mg/L	1	10/29/2013 3:03:58 PM	R14439
Chromium	0.017	0.0060		mg/L	1	10/29/2013 3:03:58 PM	R14439
Copper	ND	0.0060		mg/L	1	10/29/2013 3:03:58 PM	R14439
Iron	0.42	0.020	*	mg/L	1	10/29/2013 3:03:58 PM	R14439
Lead	ND	0.0050		mg/L	1	10/29/2013 3:03:58 PM	R14439
Manganese	0.45	0.0020	*	mg/L	1	10/31/2013 3:50:14 PM	R14514
Silver	ND	0.050		mg/L	10	11/12/2013 7:02:06 PM	R14758
Zinc	0.017	0.010		mg/L	1	10/29/2013 3:03:58 PM	R14439
EPA METHOD 200.7: METALS							Analyst: ELS
Barium	0.10	0.0020		mg/L	1	10/29/2013 12:41:51 PM	10019
Cadmium	ND	0.0020		mg/L	1	10/29/2013 12:41:51 PM	10019
Calcium	320	5.0		mg/L	5	10/29/2013 12:43:56 PM	10019
Chromium	0.018	0.0060		mg/L	1	10/29/2013 12:41:51 PM	10019
Copper	ND	0.0060		mg/L	1	10/29/2013 12:41:51 PM	10019
Iron	0.56	0.020	*	mg/L	1	10/29/2013 12:41:51 PM	10019
Magnesium	120	5.0		mg/L	5	10/29/2013 12:43:56 PM	10019
Manganese	0.46	0.0020	*	mg/L	1	10/31/2013 3:23:52 PM	10019
Potassium	88	1.0		mg/L	1	10/29/2013 12:41:51 PM	10019
Silver	ND	0.025		mg/L	5	10/29/2013 12:43:56 PM	10019
Sodium	1200	20		mg/L	20	11/5/2013 5:38:10 PM	10019
Zinc	0.025	0.010		mg/L	1	10/29/2013 12:41:51 PM	10019
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.010	0.010	*	mg/L	10	10/29/2013 6:43:40 PM	R14427
Selenium	ND	0.010		mg/L	10	10/29/2013 6:43:40 PM	R14427
Uranium	ND	0.010		mg/L	10	10/29/2013 6:43:40 PM	R14427
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.011	0.010	*	mg/L	10	10/30/2013 3:05:28 PM	10019
Lead	ND	0.010		mg/L	10	10/30/2013 3:05:28 PM	10019
Selenium	ND	0.010		mg/L	10	10/30/2013 3:05:28 PM	10019

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-1

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 3:30:00 PM

Lab ID: 1310878-001

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	ND	0.010		mg/L	10	10/30/2013 3:05:28 PM	10019
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	10/22/2013 5:26:31 PM	9934
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Acenaphthylene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Aniline	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Anthracene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Azobenzene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Benz(a)anthracene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Benzo(a)pyrene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Benzo(b)fluoranthene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Benzo(k)fluoranthene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Benzoic acid	ND	40		µg/L	1	10/27/2013 5:26:46 PM	9923
Benzyl alcohol	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Butyl benzyl phthalate	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Carbazole	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
4-Chloroaniline	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
2-Chloronaphthalene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
2-Chlorophenol	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Chrysene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Di-n-butyl phthalate	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Di-n-octyl phthalate	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Dibenzofuran	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
1,2-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
1,3-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
1,4-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Diethyl phthalate	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-1

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 3:30:00 PM

Lab ID: 1310878-001

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dimethyl phthalate	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
2,4-Dichlorophenol	ND	20		µg/L	1	10/27/2013 5:26:46 PM	9923
2,4-Dimethylphenol	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/27/2013 5:26:46 PM	9923
2,4-Dinitrophenol	ND	20		µg/L	1	10/27/2013 5:26:46 PM	9923
2,4-Dinitrotoluene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
2,6-Dinitrotoluene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Fluoranthene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Fluorene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Hexachlorobenzene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Hexachlorobutadiene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Hexachloroethane	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Isophorone	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
1-Methylnaphthalene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
2-Methylnaphthalene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
2-Methylphenol	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
3+4-Methylphenol	13	10		µg/L	1	10/27/2013 5:26:46 PM	9923
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
N-Nitrosodimethylamine	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Naphthalene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
2-Nitroaniline	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
3-Nitroaniline	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
4-Nitroaniline	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Nitrobenzene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
2-Nitrophenol	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
4-Nitrophenol	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Pentachlorophenol	ND	20		µg/L	1	10/27/2013 5:26:46 PM	9923
Phenanthrene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Phenol	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Pyrene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Pyridine	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/27/2013 5:26:46 PM	9923
Surr: 2,4,6-Tribromophenol	75.8	23.3-111		%REC	1	10/27/2013 5:26:46 PM	9923
Surr: 2-Fluorobiphenyl	73.4	38.3-110		%REC	1	10/27/2013 5:26:46 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.
	E Value above quantitation range
	J Analyte detected below quantitation limits
	O RSD is greater than RSDlimit
	R RPD outside accepted recovery limits
	S Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-1

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 3:30:00 PM

Lab ID: 1310878-001

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorophenol	59.5	22.7-98		%REC	1	10/27/2013 5:26:46 PM	9923
Surr: 4-Terphenyl-d14	70.3	52.1-116		%REC	1	10/27/2013 5:26:46 PM	9923
Surr: Nitrobenzene-d5	78.7	36.8-111		%REC	1	10/27/2013 5:26:46 PM	9923
Surr: Phenol-d5	45.4	23.4-74.9		%REC	1	10/27/2013 5:26:46 PM	9923
EPA METHOD 8260B: VOLATILES							Analyst: RAA
Benzene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
Toluene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
Ethylbenzene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
1,2,4-Trimethylbenzene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
1,3,5-Trimethylbenzene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
Naphthalene	ND	20		µg/L	10	10/21/2013 6:23:21 PM	R14226
1-Methylnaphthalene	ND	40		µg/L	10	10/21/2013 6:23:21 PM	R14226
2-Methylnaphthalene	ND	40		µg/L	10	10/21/2013 6:23:21 PM	R14226
Acetone	ND	100		µg/L	10	10/21/2013 6:23:21 PM	R14226
Bromobenzene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
Bromodichloromethane	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
Bromoform	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
Bromomethane	ND	30		µg/L	10	10/21/2013 6:23:21 PM	R14226
2-Butanone	ND	100		µg/L	10	10/21/2013 6:23:21 PM	R14226
Carbon disulfide	ND	100		µg/L	10	10/21/2013 6:23:21 PM	R14226
Carbon Tetrachloride	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
Chlorobenzene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
Chloroethane	ND	20		µg/L	10	10/21/2013 6:23:21 PM	R14226
Chloroform	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
Chloromethane	ND	30		µg/L	10	10/21/2013 6:23:21 PM	R14226
2-Chlorotoluene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
4-Chlorotoluene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
cis-1,2-DCE	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
cis-1,3-Dichloropropene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	10/21/2013 6:23:21 PM	R14226
Dibromochloromethane	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
Dibromomethane	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
1,2-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
1,3-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
1,4-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
Dichlorodifluoromethane	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226

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	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
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Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: RAA
1,1-Dichloroethane	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
1,1-Dichloroethene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
1,2-Dichloropropane	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
1,3-Dichloropropane	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
2,2-Dichloropropane	ND	20		µg/L	10	10/21/2013 6:23:21 PM	R14226
1,1-Dichloropropene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
Hexachlorobutadiene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
2-Hexanone	ND	100		µg/L	10	10/21/2013 6:23:21 PM	R14226
Isopropylbenzene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
4-Isopropyltoluene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
4-Methyl-2-pentanone	ND	100		µg/L	10	10/21/2013 6:23:21 PM	R14226
Methylene Chloride	ND	30		µg/L	10	10/21/2013 6:23:21 PM	R14226
n-Butylbenzene	ND	30		µg/L	10	10/21/2013 6:23:21 PM	R14226
n-Propylbenzene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
sec-Butylbenzene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
Styrene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
tert-Butylbenzene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	10/21/2013 6:23:21 PM	R14226
Tetrachloroethene (PCE)	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
trans-1,2-DCE	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
trans-1,3-Dichloropropene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
1,2,3-Trichlorobenzene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
1,2,4-Trichlorobenzene	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
1,1,1-Trichloroethane	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
1,1,2-Trichloroethane	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
Trichloroethene (TCE)	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
Trichlorofluoromethane	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
1,2,3-Trichloropropane	ND	20		µg/L	10	10/21/2013 6:23:21 PM	R14226
Vinyl chloride	ND	10		µg/L	10	10/21/2013 6:23:21 PM	R14226
Xylenes, Total	ND	15		µg/L	10	10/21/2013 6:23:21 PM	R14226
Surr: 1,2-Dichloroethane-d4	98.4	70-130		%REC	10	10/21/2013 6:23:21 PM	R14226
Surr: 4-Bromofluorobenzene	99.2	70-130		%REC	10	10/21/2013 6:23:21 PM	R14226
Surr: Dibromofluoromethane	102	70-130		%REC	10	10/21/2013 6:23:21 PM	R14226
Surr: Toluene-d8	102	70-130		%REC	10	10/21/2013 6:23:21 PM	R14226

SM2510B: SPECIFIC CONDUCTANCE

Analyst: **JML**

Conductivity	6900	0.010		µmhos/cm	1	10/17/2013 3:21:13 PM	R14195

SM4500-H+B: PH

Analyst: **JML**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-1

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 3:30:00 PM

Lab ID: 1310878-001

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM4500-H+B: PH						Analyst: JML	
pH	6.96	1.68	H	pH units	1	10/17/2013 3:21:13 PM	R14195

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-2

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 3:12:00 PM

Lab ID: 1310878-002

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	70	10	*	mg/L	100	10/18/2013 11:44:47 AM	R14218
Chloride	1100	50		mg/L	100	10/18/2013 11:44:47 AM	R14218
Bromide	1.4	1.0		mg/L	10	10/18/2013 11:32:22 AM	R14218
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	10/18/2013 11:32:22 AM	R14218
Sulfate	680	50		mg/L	100	10/18/2013 11:44:47 AM	R14218
Nitrate+Nitrite as N	ND	2.0		mg/L	10	10/18/2013 6:21:51 PM	R14218
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.085	0.0020		mg/L	1	10/29/2013 3:06:01 PM	R14439
Cadmium	ND	0.0020		mg/L	1	10/29/2013 3:06:01 PM	R14439
Chromium	0.0071	0.0060		mg/L	1	10/29/2013 3:06:01 PM	R14439
Copper	ND	0.0060		mg/L	1	10/29/2013 3:06:01 PM	R14439
Iron	0.27	0.020		mg/L	1	10/29/2013 3:06:01 PM	R14439
Lead	ND	0.0050		mg/L	1	10/29/2013 3:06:01 PM	R14439
Manganese	0.19	0.0020	*	mg/L	1	10/31/2013 3:52:27 PM	R14514
Silver	ND	0.0050		mg/L	1	10/29/2013 3:06:01 PM	R14439
Zinc	0.017	0.010		mg/L	1	10/29/2013 3:06:01 PM	R14439
EPA METHOD 200.7: METALS							Analyst: ELS
Barium	0.093	0.0020		mg/L	1	10/29/2013 12:45:49 PM	10019
Cadmium	ND	0.0020		mg/L	1	10/29/2013 12:45:49 PM	10019
Calcium	89	1.0		mg/L	1	10/29/2013 12:45:49 PM	10019
Chromium	0.0081	0.0060		mg/L	1	10/29/2013 12:45:49 PM	10019
Copper	ND	0.0060		mg/L	1	10/29/2013 12:45:49 PM	10019
Iron	0.45	0.020	*	mg/L	1	10/29/2013 12:45:49 PM	10019
Magnesium	30	1.0		mg/L	1	10/29/2013 12:45:49 PM	10019
Manganese	0.20	0.0020	*	mg/L	1	10/31/2013 3:34:09 PM	10019
Potassium	130	5.0		mg/L	5	10/29/2013 12:47:48 PM	10019
Silver	ND	0.025		mg/L	5	10/29/2013 12:47:48 PM	10019
Sodium	1200	20		mg/L	20	11/5/2013 5:41:44 PM	10019
Zinc	0.032	0.010		mg/L	1	10/29/2013 12:45:49 PM	10019
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	10/29/2013 6:46:19 PM	R14427
Selenium	0.011	0.010		mg/L	10	10/29/2013 6:46:19 PM	R14427
Uranium	ND	0.010		mg/L	10	10/29/2013 6:46:19 PM	R14427
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.011	0.010	*	mg/L	10	10/30/2013 3:07:52 PM	10019
Lead	ND	0.010		mg/L	10	10/30/2013 3:07:52 PM	10019
Selenium	0.012	0.010		mg/L	10	10/30/2013 3:07:52 PM	10019

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-2

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 3:12:00 PM

Lab ID: 1310878-002

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	ND	0.010		mg/L	10	10/30/2013 3:07:52 PM	10019
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	10/22/2013 5:28:21 PM	9934
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Acenaphthylene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Aniline	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Anthracene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Azobenzene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Benz(a)anthracene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Benzo(a)pyrene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Benzo(b)fluoranthene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Benzo(k)fluoranthene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Benzoic acid	57	40		µg/L	1	10/27/2013 5:55:43 PM	9923
Benzyl alcohol	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Butyl benzyl phthalate	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Carbazole	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
4-Chloroaniline	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
2-Chloronaphthalene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
2-Chlorophenol	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Chrysene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Di-n-butyl phthalate	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Di-n-octyl phthalate	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Dibenzofuran	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
1,2-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
1,3-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
1,4-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Diethyl phthalate	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-2

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 3:12:00 PM

Lab ID: 1310878-002

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dimethyl phthalate	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
2,4-Dichlorophenol	ND	20		µg/L	1	10/27/2013 5:55:43 PM	9923
2,4-Dimethylphenol	15	10		µg/L	1	10/27/2013 5:55:43 PM	9923
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/27/2013 5:55:43 PM	9923
2,4-Dinitrophenol	ND	20		µg/L	1	10/27/2013 5:55:43 PM	9923
2,4-Dinitrotoluene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
2,6-Dinitrotoluene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Fluoranthene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Fluorene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Hexachlorobenzene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Hexachlorobutadiene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Hexachloroethane	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Isophorone	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
1-Methylnaphthalene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
2-Methylnaphthalene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
2-Methylphenol	82	10		µg/L	1	10/27/2013 5:55:43 PM	9923
3+4-Methylphenol	200	10		µg/L	1	10/27/2013 5:55:43 PM	9923
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
N-Nitrosodimethylamine	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Naphthalene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
2-Nitroaniline	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
3-Nitroaniline	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
4-Nitroaniline	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Nitrobenzene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
2-Nitrophenol	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
4-Nitrophenol	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Pentachlorophenol	ND	20		µg/L	1	10/27/2013 5:55:43 PM	9923
Phenanthrene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Phenol	420	50		µg/L	5	10/25/2013 1:22:07 PM	9923
Pyrene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Pyridine	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/27/2013 5:55:43 PM	9923
Surr: 2,4,6-Tribromophenol	82.8	23.3-111		%REC	1	10/27/2013 5:55:43 PM	9923
Surr: 2-Fluorobiphenyl	73.9	38.3-110		%REC	1	10/27/2013 5:55:43 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-2

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 3:12:00 PM

Lab ID: 1310878-002

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorophenol	63.6	22.7-98		%REC	1	10/27/2013 5:55:43 PM	9923
Surr: 4-Terphenyl-d14	80.8	52.1-116		%REC	1	10/27/2013 5:55:43 PM	9923
Surr: Nitrobenzene-d5	80.6	36.8-111		%REC	1	10/27/2013 5:55:43 PM	9923
Surr: Phenol-d5	52.4	23.4-74.9		%REC	1	10/27/2013 5:55:43 PM	9923
EPA METHOD 8260B: VOLATILES							Analyst: RAA
Benzene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
Toluene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
Ethylbenzene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
1,2,4-Trimethylbenzene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
1,3,5-Trimethylbenzene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
Naphthalene	ND	20		µg/L	10	10/21/2013 7:20:34 PM	R14226
1-Methylnaphthalene	ND	40		µg/L	10	10/21/2013 7:20:34 PM	R14226
2-Methylnaphthalene	ND	40		µg/L	10	10/21/2013 7:20:34 PM	R14226
Acetone	600	100		µg/L	10	10/21/2013 7:20:34 PM	R14226
Bromobenzene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
Bromodichloromethane	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
Bromoform	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
Bromomethane	ND	30		µg/L	10	10/21/2013 7:20:34 PM	R14226
2-Butanone	ND	100		µg/L	10	10/21/2013 7:20:34 PM	R14226
Carbon disulfide	ND	100		µg/L	10	10/21/2013 7:20:34 PM	R14226
Carbon Tetrachloride	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
Chlorobenzene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
Chloroethane	ND	20		µg/L	10	10/21/2013 7:20:34 PM	R14226
Chloroform	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
Chloromethane	ND	30		µg/L	10	10/21/2013 7:20:34 PM	R14226
2-Chlorotoluene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
4-Chlorotoluene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
cis-1,2-DCE	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
cis-1,3-Dichloropropene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	10/21/2013 7:20:34 PM	R14226
Dibromochloromethane	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
Dibromomethane	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
1,2-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
1,3-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
1,4-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
Dichlorodifluoromethane	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-2

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 3:12:00 PM

Lab ID: 1310878-002

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: RAA
1,1-Dichloroethane	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
1,1-Dichloroethene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
1,2-Dichloropropane	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
1,3-Dichloropropane	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
2,2-Dichloropropane	ND	20		µg/L	10	10/21/2013 7:20:34 PM	R14226
1,1-Dichloropropene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
Hexachlorobutadiene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
2-Hexanone	ND	100		µg/L	10	10/21/2013 7:20:34 PM	R14226
Isopropylbenzene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
4-Isopropyltoluene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
4-Methyl-2-pentanone	ND	100		µg/L	10	10/21/2013 7:20:34 PM	R14226
Methylene Chloride	ND	30		µg/L	10	10/21/2013 7:20:34 PM	R14226
n-Butylbenzene	ND	30		µg/L	10	10/21/2013 7:20:34 PM	R14226
n-Propylbenzene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
sec-Butylbenzene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
Styrene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
tert-Butylbenzene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	10/21/2013 7:20:34 PM	R14226
Tetrachloroethene (PCE)	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
trans-1,2-DCE	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
trans-1,3-Dichloropropene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
1,2,3-Trichlorobenzene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
1,2,4-Trichlorobenzene	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
1,1,1-Trichloroethane	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
1,1,2-Trichloroethane	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
Trichloroethene (TCE)	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
Trichlorofluoromethane	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
1,2,3-Trichloropropane	ND	20		µg/L	10	10/21/2013 7:20:34 PM	R14226
Vinyl chloride	ND	10		µg/L	10	10/21/2013 7:20:34 PM	R14226
Xylenes, Total	ND	15		µg/L	10	10/21/2013 7:20:34 PM	R14226
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%REC	10	10/21/2013 7:20:34 PM	R14226
Surr: 4-Bromofluorobenzene	95.7	70-130		%REC	10	10/21/2013 7:20:34 PM	R14226
Surr: Dibromofluoromethane	104	70-130		%REC	10	10/21/2013 7:20:34 PM	R14226
Surr: Toluene-d8	102	70-130		%REC	10	10/21/2013 7:20:34 PM	R14226

SM2510B: SPECIFIC CONDUCTANCE

Analyst: **JML**

Conductivity	6500	0.010		µmhos/cm	1	10/17/2013 3:25:51 PM	R14195

SM4500-H+B: PH

Analyst: **JML**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-2

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 3:12:00 PM

Lab ID: 1310878-002

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM4500-H+B: PH							Analyst: JML
pH	8.33	1.68	H	pH units	1	10/17/2013 3:25:51 PM	R14195

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-3

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 2:53:00 PM

Lab ID: 1310878-003

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	39	10	*	mg/L	100	10/18/2013 12:34:24 PM	R14218
Chloride	5200	250		mg/L	500	10/25/2013 8:04:24 PM	R14381
Bromide	1.3	1.0		mg/L	10	10/18/2013 12:22:00 PM	R14218
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	10/25/2013 7:51:59 PM	R14381
Sulfate	730	50		mg/L	100	10/18/2013 12:34:24 PM	R14218
Nitrate+Nitrite as N	ND	4.0		mg/L	20	10/26/2013 12:49:49 AM	R14381
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.085	0.0020		mg/L	1	10/29/2013 3:08:01 PM	R14439
Cadmium	ND	0.0020		mg/L	1	10/29/2013 3:08:01 PM	R14439
Chromium	0.0073	0.0060		mg/L	1	10/29/2013 3:08:01 PM	R14439
Copper	ND	0.0060		mg/L	1	10/29/2013 3:08:01 PM	R14439
Iron	0.20	0.020		mg/L	1	10/29/2013 3:08:01 PM	R14439
Lead	ND	0.0050		mg/L	1	10/29/2013 3:08:01 PM	R14439
Manganese	0.15	0.0020	*	mg/L	1	10/31/2013 4:02:48 PM	R14514
Silver	ND	0.050		mg/L	10	11/12/2013 7:04:06 PM	R14758
Zinc	0.012	0.010		mg/L	1	10/29/2013 3:08:01 PM	R14439
EPA METHOD 200.7: METALS							Analyst: ELS
Barium	0.11	0.0020		mg/L	1	10/29/2013 12:58:10 PM	10019
Cadmium	ND	0.0020		mg/L	1	10/29/2013 12:58:10 PM	10019
Calcium	390	5.0		mg/L	5	10/29/2013 1:00:14 PM	10019
Chromium	0.0070	0.0060		mg/L	1	10/29/2013 12:58:10 PM	10019
Copper	ND	0.0060		mg/L	1	10/29/2013 12:58:10 PM	10019
Iron	0.76	0.020	*	mg/L	1	10/29/2013 12:58:10 PM	10019
Magnesium	130	5.0		mg/L	5	10/29/2013 1:00:14 PM	10019
Manganese	0.19	0.0020	*	mg/L	1	10/31/2013 3:36:09 PM	10019
Potassium	250	5.0		mg/L	5	11/4/2013 5:33:12 PM	10019
Silver	ND	0.025		mg/L	5	10/29/2013 1:00:14 PM	10019
Sodium	3400	100		mg/L	100	11/5/2013 5:45:17 PM	10019
Zinc	0.023	0.010		mg/L	1	10/29/2013 12:58:10 PM	10019
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.010	0.010	*	mg/L	10	10/29/2013 6:48:59 PM	R14427
Selenium	0.015	0.010		mg/L	10	10/29/2013 6:48:59 PM	R14427
Uranium	ND	0.010		mg/L	10	10/29/2013 6:48:59 PM	R14427
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.014	0.010	*	mg/L	10	10/30/2013 3:10:16 PM	10019
Lead	ND	0.010		mg/L	10	10/30/2013 3:10:16 PM	10019
Selenium	0.015	0.010		mg/L	10	10/30/2013 3:10:16 PM	10019

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-3

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 2:53:00 PM

Lab ID: 1310878-003

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	ND	0.010		mg/L	10	10/30/2013 3:10:16 PM	10019
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	10/22/2013 5:33:54 PM	9934
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Acenaphthylene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Aniline	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Anthracene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Azobenzene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Benz(a)anthracene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Benzo(a)pyrene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Benzo(b)fluoranthene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Benzo(g,h,i)perylene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Benzo(k)fluoranthene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Benzoic acid	ND	200		µg/L	1	10/27/2013 6:24:36 PM	9923
Benzyl alcohol	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Bis(2-chloroethyl)ether	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
4-Bromophenyl phenyl ether	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Butyl benzyl phthalate	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Carbazole	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
4-Chloro-3-methylphenol	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
4-Chloroaniline	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
2-Chloronaphthalene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
2-Chlorophenol	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Chrysene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Di-n-butyl phthalate	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Di-n-octyl phthalate	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Dibenz(a,h)anthracene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Dibenzofuran	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
1,2-Dichlorobenzene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
1,3-Dichlorobenzene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
1,4-Dichlorobenzene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
3,3'-Dichlorobenzidine	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Diethyl phthalate	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-3

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 2:53:00 PM

Lab ID: 1310878-003

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dimethyl phthalate	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
2,4-Dichlorophenol	ND	100		µg/L	1	10/27/2013 6:24:36 PM	9923
2,4-Dimethylphenol	59	50		µg/L	1	10/27/2013 6:24:36 PM	9923
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	10/27/2013 6:24:36 PM	9923
2,4-Dinitrophenol	ND	100		µg/L	1	10/27/2013 6:24:36 PM	9923
2,4-Dinitrotoluene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
2,6-Dinitrotoluene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Fluoranthene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Fluorene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Hexachlorobenzene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Hexachlorobutadiene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Hexachlorocyclopentadiene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Hexachloroethane	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Isophorone	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
1-Methylnaphthalene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
2-Methylnaphthalene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
2-Methylphenol	250	50		µg/L	1	10/27/2013 6:24:36 PM	9923
3+4-Methylphenol	450	50		µg/L	1	10/27/2013 6:24:36 PM	9923
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
N-Nitrosodimethylamine	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
N-Nitrosodiphenylamine	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Naphthalene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
2-Nitroaniline	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
3-Nitroaniline	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
4-Nitroaniline	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Nitrobenzene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
2-Nitrophenol	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
4-Nitrophenol	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Pentachlorophenol	ND	100		µg/L	1	10/27/2013 6:24:36 PM	9923
Phenanthrene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Phenol	1000	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Pyrene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Pyridine	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
1,2,4-Trichlorobenzene	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
2,4,5-Trichlorophenol	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
2,4,6-Trichlorophenol	ND	50		µg/L	1	10/27/2013 6:24:36 PM	9923
Surr: 2,4,6-Tribromophenol	75.0	23.3-111		%REC	1	10/27/2013 6:24:36 PM	9923
Surr: 2-Fluorobiphenyl	75.2	38.3-110		%REC	1	10/27/2013 6:24:36 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.
	E Value above quantitation range
	J Analyte detected below quantitation limits
	O RSD is greater than RSDlimit
	R RPD outside accepted recovery limits
	S Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-3

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 2:53:00 PM

Lab ID: 1310878-003

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorophenol	65.2	22.7-98		%REC	1	10/27/2013 6:24:36 PM	9923
Surr: 4-Terphenyl-d14	81.4	52.1-116		%REC	1	10/27/2013 6:24:36 PM	9923
Surr: Nitrobenzene-d5	83.9	36.8-111		%REC	1	10/27/2013 6:24:36 PM	9923
Surr: Phenol-d5	50.6	23.4-74.9		%REC	1	10/27/2013 6:24:36 PM	9923
EPA METHOD 8260B: VOLATILES							Analyst: RAA
Benzene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
Toluene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
Ethylbenzene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
1,2,4-Trimethylbenzene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
1,3,5-Trimethylbenzene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
Naphthalene	ND	20		µg/L	10	10/21/2013 7:49:17 PM	R14226
1-Methylnaphthalene	ND	40		µg/L	10	10/21/2013 7:49:17 PM	R14226
2-Methylnaphthalene	ND	40		µg/L	10	10/21/2013 7:49:17 PM	R14226
Acetone	160	100		µg/L	10	10/21/2013 7:49:17 PM	R14226
Bromobenzene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
Bromodichloromethane	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
Bromoform	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
Bromomethane	ND	30		µg/L	10	10/21/2013 7:49:17 PM	R14226
2-Butanone	ND	100		µg/L	10	10/21/2013 7:49:17 PM	R14226
Carbon disulfide	ND	100		µg/L	10	10/21/2013 7:49:17 PM	R14226
Carbon Tetrachloride	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
Chlorobenzene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
Chloroethane	ND	20		µg/L	10	10/21/2013 7:49:17 PM	R14226
Chloroform	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
Chloromethane	ND	30		µg/L	10	10/21/2013 7:49:17 PM	R14226
2-Chlorotoluene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
4-Chlorotoluene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
cis-1,2-DCE	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
cis-1,3-Dichloropropene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	10/21/2013 7:49:17 PM	R14226
Dibromochloromethane	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
Dibromomethane	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
1,2-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
1,3-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
1,4-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
Dichlorodifluoromethane	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-3

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 2:53:00 PM

Lab ID: 1310878-003

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: RAA
1,1-Dichloroethane	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
1,1-Dichloroethene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
1,2-Dichloropropane	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
1,3-Dichloropropane	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
2,2-Dichloropropane	ND	20		µg/L	10	10/21/2013 7:49:17 PM	R14226
1,1-Dichloropropene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
Hexachlorobutadiene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
2-Hexanone	ND	100		µg/L	10	10/21/2013 7:49:17 PM	R14226
Isopropylbenzene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
4-Isopropyltoluene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
4-Methyl-2-pentanone	ND	100		µg/L	10	10/21/2013 7:49:17 PM	R14226
Methylene Chloride	ND	30		µg/L	10	10/21/2013 7:49:17 PM	R14226
n-Butylbenzene	ND	30		µg/L	10	10/21/2013 7:49:17 PM	R14226
n-Propylbenzene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
sec-Butylbenzene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
Styrene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
tert-Butylbenzene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	10/21/2013 7:49:17 PM	R14226
Tetrachloroethene (PCE)	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
trans-1,2-DCE	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
trans-1,3-Dichloropropene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
1,2,3-Trichlorobenzene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
1,2,4-Trichlorobenzene	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
1,1,1-Trichloroethane	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
1,1,2-Trichloroethane	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
Trichloroethene (TCE)	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
Trichlorofluoromethane	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
1,2,3-Trichloropropane	ND	20		µg/L	10	10/21/2013 7:49:17 PM	R14226
Vinyl chloride	ND	10		µg/L	10	10/21/2013 7:49:17 PM	R14226
Xylenes, Total	ND	15		µg/L	10	10/21/2013 7:49:17 PM	R14226
Surr: 1,2-Dichloroethane-d4	99.5	70-130		%REC	10	10/21/2013 7:49:17 PM	R14226
Surr: 4-Bromofluorobenzene	102	70-130		%REC	10	10/21/2013 7:49:17 PM	R14226
Surr: Dibromofluoromethane	103	70-130		%REC	10	10/21/2013 7:49:17 PM	R14226
Surr: Toluene-d8	101	70-130		%REC	10	10/21/2013 7:49:17 PM	R14226

SM2510B: SPECIFIC CONDUCTANCE

Analyst: **JML**

Conductivity	18000	0.050	µmhos/cm	5	10/17/2013 11:03:56 PM	R14195

SM4500-H+B: PH

Analyst: **JML**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-3

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 2:53:00 PM

Lab ID: 1310878-003

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM4500-H+B: PH						Analyst: JML	
pH	7.77	1.68	H	pH units	1	10/17/2013 3:30:10 PM	R14195

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-4

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 2:37:00 PM

Lab ID: 1310878-004

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	33	1.0	*	mg/L	10	10/18/2013 12:46:49 PM	R14218
Chloride	6000	250		mg/L	500	10/25/2013 8:29:13 PM	R14381
Bromide	1.4	1.0		mg/L	10	10/18/2013 12:46:49 PM	R14218
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	10/25/2013 8:16:49 PM	R14381
Sulfate	830	50		mg/L	100	10/18/2013 12:59:14 PM	R14218
Nitrate+Nitrite as N	ND	4.0		mg/L	20	10/26/2013 1:02:14 AM	R14381
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.084	0.0020		mg/L	1	10/29/2013 3:18:49 PM	R14439
Cadmium	ND	0.0020		mg/L	1	10/29/2013 3:18:49 PM	R14439
Chromium	ND	0.0060		mg/L	1	10/29/2013 3:18:49 PM	R14439
Copper	ND	0.0060		mg/L	1	10/29/2013 3:18:49 PM	R14439
Iron	0.26	0.020		mg/L	1	10/29/2013 3:18:49 PM	R14439
Lead	ND	0.0050		mg/L	1	11/4/2013 7:40:25 PM	R14569
Manganese	0.15	0.0020	*	mg/L	1	10/31/2013 4:05:05 PM	R14514
Silver	ND	0.050		mg/L	10	11/12/2013 7:06:06 PM	R14758
Zinc	0.013	0.010		mg/L	1	10/29/2013 3:18:49 PM	R14439
EPA METHOD 200.7: METALS							Analyst: ELS
Barium	0.091	0.0020		mg/L	1	10/29/2013 1:02:11 PM	10019
Cadmium	ND	0.0020		mg/L	1	10/29/2013 1:02:11 PM	10019
Calcium	390	5.0		mg/L	5	10/29/2013 1:04:25 PM	10019
Chromium	0.0068	0.0060		mg/L	1	10/29/2013 1:02:11 PM	10019
Copper	ND	0.0060		mg/L	1	10/29/2013 1:02:11 PM	10019
Iron	0.38	0.020	*	mg/L	1	10/29/2013 1:02:11 PM	10019
Magnesium	140	5.0		mg/L	5	10/29/2013 1:04:25 PM	10019
Manganese	0.15	0.0020	*	mg/L	1	10/31/2013 3:38:08 PM	10019
Potassium	260	5.0		mg/L	5	11/4/2013 5:37:04 PM	10019
Silver	ND	0.025		mg/L	5	10/29/2013 1:04:25 PM	10019
Sodium	3500	100		mg/L	100	11/5/2013 5:48:50 PM	10019
Zinc	0.018	0.010		mg/L	1	10/29/2013 1:02:11 PM	10019
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.012	0.010	*	mg/L	10	10/29/2013 6:57:01 PM	R14427
Selenium	0.017	0.010		mg/L	10	10/29/2013 6:57:01 PM	R14427
Uranium	ND	0.010		mg/L	10	10/29/2013 6:57:01 PM	R14427
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.012	0.010	*	mg/L	10	10/30/2013 3:12:39 PM	10019
Lead	ND	0.010		mg/L	10	10/30/2013 3:12:39 PM	10019
Selenium	0.017	0.010		mg/L	10	10/30/2013 3:12:39 PM	10019

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-4

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 2:37:00 PM

Lab ID: 1310878-004

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	ND	0.010		mg/L	10	10/30/2013 3:12:39 PM	10019
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	10/22/2013 5:35:45 PM	9934
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Acenaphthylene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Aniline	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Anthracene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Azobenzene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Benz(a)anthracene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Benzo(a)pyrene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Benzo(b)fluoranthene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Benzo(g,h,i)perylene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Benzo(k)fluoranthene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Benzoic acid	ND	200		µg/L	1	10/27/2013 6:53:26 PM	9923
Benzyl alcohol	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Bis(2-chloroethyl)ether	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
4-Bromophenyl phenyl ether	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Butyl benzyl phthalate	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Carbazole	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
4-Chloro-3-methylphenol	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
4-Chloroaniline	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
2-Chloronaphthalene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
2-Chlorophenol	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Chrysene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Di-n-butyl phthalate	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Di-n-octyl phthalate	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Dibenz(a,h)anthracene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Dibenzofuran	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
1,2-Dichlorobenzene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
1,3-Dichlorobenzene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
1,4-Dichlorobenzene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
3,3'-Dichlorobenzidine	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Diethyl phthalate	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-4

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 2:37:00 PM

Lab ID: 1310878-004

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dimethyl phthalate	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
2,4-Dichlorophenol	ND	100		µg/L	1	10/27/2013 6:53:26 PM	9923
2,4-Dimethylphenol	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	10/27/2013 6:53:26 PM	9923
2,4-Dinitrophenol	ND	100		µg/L	1	10/27/2013 6:53:26 PM	9923
2,4-Dinitrotoluene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
2,6-Dinitrotoluene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Fluoranthene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Fluorene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Hexachlorobenzene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Hexachlorobutadiene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Hexachlorocyclopentadiene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Hexachloroethane	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Isophorone	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
1-Methylnaphthalene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
2-Methylnaphthalene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
2-Methylphenol	180	50		µg/L	1	10/27/2013 6:53:26 PM	9923
3+4-Methylphenol	340	50		µg/L	1	10/27/2013 6:53:26 PM	9923
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
N-Nitrosodimethylamine	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
N-Nitrosodiphenylamine	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Naphthalene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
2-Nitroaniline	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
3-Nitroaniline	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
4-Nitroaniline	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Nitrobenzene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
2-Nitrophenol	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
4-Nitrophenol	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Pentachlorophenol	ND	100		µg/L	1	10/27/2013 6:53:26 PM	9923
Phenanthrene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Phenol	670	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Pyrene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Pyridine	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
1,2,4-Trichlorobenzene	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
2,4,5-Trichlorophenol	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
2,4,6-Trichlorophenol	ND	50		µg/L	1	10/27/2013 6:53:26 PM	9923
Surr: 2,4,6-Tribromophenol	60.3	23.3-111		%REC	1	10/27/2013 6:53:26 PM	9923
Surr: 2-Fluorobiphenyl	68.9	38.3-110		%REC	1	10/27/2013 6:53:26 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.
	E Value above quantitation range
	J Analyte detected below quantitation limits
	O RSD is greater than RSDlimit
	R RPD outside accepted recovery limits
	S Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-4

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 2:37:00 PM

Lab ID: 1310878-004

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorophenol	59.6	22.7-98		%REC	1	10/27/2013 6:53:26 PM	9923
Surr: 4-Terphenyl-d14	77.4	52.1-116		%REC	1	10/27/2013 6:53:26 PM	9923
Surr: Nitrobenzene-d5	74.0	36.8-111		%REC	1	10/27/2013 6:53:26 PM	9923
Surr: Phenol-d5	48.2	23.4-74.9		%REC	1	10/27/2013 6:53:26 PM	9923
EPA METHOD 8260B: VOLATILES							Analyst: RAA
Benzene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
Toluene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
Ethylbenzene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
1,2,4-Trimethylbenzene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
1,3,5-Trimethylbenzene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
Naphthalene	ND	20		µg/L	10	10/21/2013 8:17:51 PM	R14226
1-Methylnaphthalene	ND	40		µg/L	10	10/21/2013 8:17:51 PM	R14226
2-Methylnaphthalene	ND	40		µg/L	10	10/21/2013 8:17:51 PM	R14226
Acetone	120	100		µg/L	10	10/21/2013 8:17:51 PM	R14226
Bromobenzene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
Bromodichloromethane	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
Bromoform	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
Bromomethane	ND	30		µg/L	10	10/21/2013 8:17:51 PM	R14226
2-Butanone	ND	100		µg/L	10	10/21/2013 8:17:51 PM	R14226
Carbon disulfide	ND	100		µg/L	10	10/21/2013 8:17:51 PM	R14226
Carbon Tetrachloride	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
Chlorobenzene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
Chloroethane	ND	20		µg/L	10	10/21/2013 8:17:51 PM	R14226
Chloroform	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
Chloromethane	ND	30		µg/L	10	10/21/2013 8:17:51 PM	R14226
2-Chlorotoluene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
4-Chlorotoluene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
cis-1,2-DCE	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
cis-1,3-Dichloropropene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	10/21/2013 8:17:51 PM	R14226
Dibromochloromethane	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
Dibromomethane	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
1,2-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
1,3-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
1,4-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
Dichlorodifluoromethane	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-4

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 2:37:00 PM

Lab ID: 1310878-004

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: RAA
1,1-Dichloroethane	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
1,1-Dichloroethene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
1,2-Dichloropropane	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
1,3-Dichloropropane	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
2,2-Dichloropropane	ND	20		µg/L	10	10/21/2013 8:17:51 PM	R14226
1,1-Dichloropropene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
Hexachlorobutadiene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
2-Hexanone	ND	100		µg/L	10	10/21/2013 8:17:51 PM	R14226
Isopropylbenzene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
4-Isopropyltoluene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
4-Methyl-2-pentanone	ND	100		µg/L	10	10/21/2013 8:17:51 PM	R14226
Methylene Chloride	ND	30		µg/L	10	10/21/2013 8:17:51 PM	R14226
n-Butylbenzene	ND	30		µg/L	10	10/21/2013 8:17:51 PM	R14226
n-Propylbenzene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
sec-Butylbenzene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
Styrene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
tert-Butylbenzene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	10/21/2013 8:17:51 PM	R14226
Tetrachloroethene (PCE)	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
trans-1,2-DCE	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
trans-1,3-Dichloropropene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
1,2,3-Trichlorobenzene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
1,2,4-Trichlorobenzene	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
1,1,1-Trichloroethane	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
1,1,2-Trichloroethane	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
Trichloroethene (TCE)	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
Trichlorofluoromethane	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
1,2,3-Trichloropropane	ND	20		µg/L	10	10/21/2013 8:17:51 PM	R14226
Vinyl chloride	ND	10		µg/L	10	10/21/2013 8:17:51 PM	R14226
Xylenes, Total	ND	15		µg/L	10	10/21/2013 8:17:51 PM	R14226
Surr: 1,2-Dichloroethane-d4	98.7	70-130		%REC	10	10/21/2013 8:17:51 PM	R14226
Surr: 4-Bromofluorobenzene	102	70-130		%REC	10	10/21/2013 8:17:51 PM	R14226
Surr: Dibromofluoromethane	102	70-130		%REC	10	10/21/2013 8:17:51 PM	R14226
Surr: Toluene-d8	95.3	70-130		%REC	10	10/21/2013 8:17:51 PM	R14226

SM2510B: SPECIFIC CONDUCTANCE

Analyst: **JML**

Conductivity	20000	0.050	µmhos/cm	5	10/17/2013 11:08:00 PM	R14195

SM4500-H+B: PH

Analyst: **JML**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

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Collection Date: 10/15/2013 2:37:00 PM

Lab ID: 1310878-004

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM4500-H+B: PH						Analyst: JML	
pH	7.72	1.68	H	pH units	1	10/17/2013 3:34:29 PM	R14195

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-5

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 2:21:00 PM

Lab ID: 1310878-005

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	29	1.0	*	mg/L	10	10/18/2013 1:11:39 PM	R14218
Chloride	6500	250		mg/L	500	10/25/2013 9:18:50 PM	R14381
Bromide	1.6	1.0		mg/L	10	10/18/2013 1:11:39 PM	R14218
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	10/25/2013 9:06:26 PM	R14381
Sulfate	950	50		mg/L	100	10/18/2013 1:24:04 PM	R14218
Nitrate+Nitrite as N	ND	4.0		mg/L	20	10/26/2013 1:14:38 AM	R14381
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.089	0.0020		mg/L	1	10/29/2013 3:21:01 PM	R14439
Cadmium	ND	0.0020		mg/L	1	10/29/2013 3:21:01 PM	R14439
Chromium	0.0079	0.0060		mg/L	1	10/29/2013 3:21:01 PM	R14439
Copper	ND	0.0060		mg/L	1	10/29/2013 3:21:01 PM	R14439
Iron	0.27	0.020		mg/L	1	10/29/2013 3:21:01 PM	R14439
Lead	ND	0.0050		mg/L	1	11/4/2013 7:43:56 PM	R14569
Manganese	0.18	0.0020	*	mg/L	1	10/31/2013 4:07:23 PM	R14514
Silver	ND	0.050		mg/L	10	11/12/2013 7:08:05 PM	R14758
Zinc	0.012	0.010		mg/L	1	10/29/2013 3:21:01 PM	R14439
EPA METHOD 200.7: METALS							Analyst: ELS
Barium	0.090	0.0020		mg/L	1	10/29/2013 1:06:19 PM	10019
Cadmium	ND	0.0020		mg/L	1	10/29/2013 1:06:19 PM	10019
Calcium	390	5.0		mg/L	5	10/29/2013 1:08:31 PM	10019
Chromium	0.0071	0.0060		mg/L	1	10/29/2013 1:06:19 PM	10019
Copper	ND	0.0060		mg/L	1	10/29/2013 1:06:19 PM	10019
Iron	0.33	0.020	*	mg/L	1	10/29/2013 1:06:19 PM	10019
Magnesium	140	5.0		mg/L	5	10/29/2013 1:08:31 PM	10019
Manganese	0.18	0.0020	*	mg/L	1	10/31/2013 3:40:24 PM	10019
Potassium	250	5.0		mg/L	5	11/4/2013 5:40:54 PM	10019
Silver	ND	0.025		mg/L	5	10/29/2013 1:08:31 PM	10019
Sodium	3600	100		mg/L	100	11/5/2013 5:52:23 PM	10019
Zinc	0.016	0.010		mg/L	1	10/29/2013 1:06:19 PM	10019
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.013	0.010	*	mg/L	10	10/29/2013 6:59:41 PM	R14427
Selenium	0.018	0.010		mg/L	10	10/29/2013 6:59:41 PM	R14427
Uranium	ND	0.010		mg/L	10	10/29/2013 6:59:41 PM	R14427
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.013	0.010	*	mg/L	10	10/30/2013 3:15:02 PM	10019
Lead	ND	0.010		mg/L	10	10/30/2013 3:15:02 PM	10019
Selenium	0.017	0.010		mg/L	10	10/30/2013 3:15:02 PM	10019

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

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Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-5

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 2:21:00 PM

Lab ID: 1310878-005

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	ND	0.010		mg/L	10	10/30/2013 3:15:02 PM	10019
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	10/22/2013 5:37:28 PM	9934
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Acenaphthylene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Aniline	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Anthracene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Azobenzene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Benz(a)anthracene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Benzo(a)pyrene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Benzo(b)fluoranthene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Benzo(g,h,i)perylene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Benzo(k)fluoranthene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Benzoic acid	ND	200		µg/L	1	10/27/2013 7:22:10 PM	9923
Benzyl alcohol	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Bis(2-chloroethyl)ether	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
4-Bromophenyl phenyl ether	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Butyl benzyl phthalate	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Carbazole	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
4-Chloro-3-methylphenol	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
4-Chloroaniline	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
2-Chloronaphthalene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
2-Chlorophenol	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Chrysene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Di-n-butyl phthalate	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Di-n-octyl phthalate	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Dibenz(a,h)anthracene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Dibenzofuran	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
1,2-Dichlorobenzene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
1,3-Dichlorobenzene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
1,4-Dichlorobenzene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
3,3'-Dichlorobenzidine	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Diethyl phthalate	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923

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Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dimethyl phthalate	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
2,4-Dichlorophenol	ND	100		µg/L	1	10/27/2013 7:22:10 PM	9923
2,4-Dimethylphenol	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	10/27/2013 7:22:10 PM	9923
2,4-Dinitrophenol	ND	100		µg/L	1	10/27/2013 7:22:10 PM	9923
2,4-Dinitrotoluene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
2,6-Dinitrotoluene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Fluoranthene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Fluorene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Hexachlorobenzene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Hexachlorobutadiene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Hexachlorocyclopentadiene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Hexachloroethane	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Isophorone	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
1-Methylnaphthalene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
2-Methylnaphthalene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
2-Methylphenol	160	50		µg/L	1	10/27/2013 7:22:10 PM	9923
3+4-Methylphenol	260	50		µg/L	1	10/27/2013 7:22:10 PM	9923
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
N-Nitrosodimethylamine	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
N-Nitrosodiphenylamine	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Naphthalene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
2-Nitroaniline	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
3-Nitroaniline	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
4-Nitroaniline	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Nitrobenzene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
2-Nitrophenol	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
4-Nitrophenol	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Pentachlorophenol	ND	100		µg/L	1	10/27/2013 7:22:10 PM	9923
Phenanthrene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Phenol	540	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Pyrene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Pyridine	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
1,2,4-Trichlorobenzene	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
2,4,5-Trichlorophenol	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
2,4,6-Trichlorophenol	ND	50		µg/L	1	10/27/2013 7:22:10 PM	9923
Surr: 2,4,6-Tribromophenol	64.0	23.3-111		%REC	1	10/27/2013 7:22:10 PM	9923
Surr: 2-Fluorobiphenyl	68.6	38.3-110		%REC	1	10/27/2013 7:22:10 PM	9923

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Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorophenol	61.6	22.7-98		%REC	1	10/27/2013 7:22:10 PM	9923
Surr: 4-Terphenyl-d14	78.8	52.1-116		%REC	1	10/27/2013 7:22:10 PM	9923
Surr: Nitrobenzene-d5	75.6	36.8-111		%REC	1	10/27/2013 7:22:10 PM	9923
Surr: Phenol-d5	51.4	23.4-74.9		%REC	1	10/27/2013 7:22:10 PM	9923
EPA METHOD 8260B: VOLATILES							Analyst: RAA
Benzene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
Toluene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
Ethylbenzene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
1,2,4-Trimethylbenzene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
1,3,5-Trimethylbenzene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
Naphthalene	ND	20		µg/L	10	10/21/2013 8:46:26 PM	R14226
1-Methylnaphthalene	ND	40		µg/L	10	10/21/2013 8:46:26 PM	R14226
2-Methylnaphthalene	ND	40		µg/L	10	10/21/2013 8:46:26 PM	R14226
Acetone	ND	100		µg/L	10	10/21/2013 8:46:26 PM	R14226
Bromobenzene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
Bromodichloromethane	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
Bromoform	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
Bromomethane	ND	30		µg/L	10	10/21/2013 8:46:26 PM	R14226
2-Butanone	ND	100		µg/L	10	10/21/2013 8:46:26 PM	R14226
Carbon disulfide	ND	100		µg/L	10	10/21/2013 8:46:26 PM	R14226
Carbon Tetrachloride	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
Chlorobenzene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
Chloroethane	ND	20		µg/L	10	10/21/2013 8:46:26 PM	R14226
Chloroform	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
Chloromethane	ND	30		µg/L	10	10/21/2013 8:46:26 PM	R14226
2-Chlorotoluene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
4-Chlorotoluene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
cis-1,2-DCE	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
cis-1,3-Dichloropropene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	10/21/2013 8:46:26 PM	R14226
Dibromochloromethane	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
Dibromomethane	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
1,2-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
1,3-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
1,4-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
Dichlorodifluoromethane	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-5

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 2:21:00 PM

Lab ID: 1310878-005

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: RAA
1,1-Dichloroethane	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
1,1-Dichloroethene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
1,2-Dichloropropane	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
1,3-Dichloropropane	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
2,2-Dichloropropane	ND	20		µg/L	10	10/21/2013 8:46:26 PM	R14226
1,1-Dichloropropene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
Hexachlorobutadiene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
2-Hexanone	ND	100		µg/L	10	10/21/2013 8:46:26 PM	R14226
Isopropylbenzene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
4-Isopropyltoluene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
4-Methyl-2-pentanone	ND	100		µg/L	10	10/21/2013 8:46:26 PM	R14226
Methylene Chloride	ND	30		µg/L	10	10/21/2013 8:46:26 PM	R14226
n-Butylbenzene	ND	30		µg/L	10	10/21/2013 8:46:26 PM	R14226
n-Propylbenzene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
sec-Butylbenzene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
Styrene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
tert-Butylbenzene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	10/21/2013 8:46:26 PM	R14226
Tetrachloroethene (PCE)	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
trans-1,2-DCE	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
trans-1,3-Dichloropropene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
1,2,3-Trichlorobenzene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
1,2,4-Trichlorobenzene	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
1,1,1-Trichloroethane	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
1,1,2-Trichloroethane	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
Trichloroethene (TCE)	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
Trichlorofluoromethane	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
1,2,3-Trichloropropane	ND	20		µg/L	10	10/21/2013 8:46:26 PM	R14226
Vinyl chloride	ND	10		µg/L	10	10/21/2013 8:46:26 PM	R14226
Xylenes, Total	ND	15		µg/L	10	10/21/2013 8:46:26 PM	R14226
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	10	10/21/2013 8:46:26 PM	R14226
Surr: 4-Bromofluorobenzene	97.7	70-130		%REC	10	10/21/2013 8:46:26 PM	R14226
Surr: Dibromofluoromethane	103	70-130		%REC	10	10/21/2013 8:46:26 PM	R14226
Surr: Toluene-d8	103	70-130		%REC	10	10/21/2013 8:46:26 PM	R14226

SM2510B: SPECIFIC CONDUCTANCE

Analyst: **JML**

Conductivity	21000	0.050	µmhos/cm	5	10/17/2013 11:12:10 PM	R14195

SM4500-H+B: PH

Analyst: **JML**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-5

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 2:21:00 PM

Lab ID: 1310878-005

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM4500-H+B: PH							Analyst: JML
pH	7.89	1.68	H	pH units	1	10/17/2013 3:38:47 PM	R14195

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-6

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:57:00 PM

Lab ID: 1310878-006

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	17	1.0	*	mg/L	10	10/18/2013 1:36:28 PM	R14218
Chloride	11000	500		mg/L	1E	10/25/2013 9:43:39 PM	R14381
Bromide	3.1	1.0		mg/L	10	10/18/2013 1:36:28 PM	R14218
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	10/25/2013 9:31:14 PM	R14381
Sulfate	2200	50		mg/L	100	10/18/2013 1:48:53 PM	R14218
Nitrate+Nitrite as N	ND	10		mg/L	50	10/26/2013 2:04:16 AM	R14381
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.098	0.0020		mg/L	1	10/29/2013 3:23:14 PM	R14439
Cadmium	ND	0.0020		mg/L	1	10/29/2013 3:23:14 PM	R14439
Chromium	0.0086	0.0060		mg/L	1	10/29/2013 3:23:14 PM	R14439
Copper	ND	0.0060		mg/L	1	10/29/2013 3:23:14 PM	R14439
Iron	0.077	0.020		mg/L	1	10/29/2013 3:23:14 PM	R14439
Lead	ND	0.0050		mg/L	1	11/4/2013 7:47:26 PM	R14569
Manganese	0.22	0.0020	*	mg/L	1	10/31/2013 4:09:42 PM	R14514
Silver	ND	0.050		mg/L	10	11/12/2013 7:10:03 PM	R14758
Zinc	ND	0.010		mg/L	1	10/29/2013 3:23:14 PM	R14439
EPA METHOD 200.7: METALS							Analyst: ELS
Barium	0.099	0.0020		mg/L	1	10/29/2013 1:10:26 PM	10019
Cadmium	ND	0.0020		mg/L	1	10/29/2013 1:10:26 PM	10019
Calcium	620	10		mg/L	10	11/4/2013 6:03:01 PM	10019
Chromium	0.0099	0.0060		mg/L	1	10/29/2013 1:10:26 PM	10019
Copper	ND	0.0060		mg/L	1	10/29/2013 1:10:26 PM	10019
Iron	0.10	0.020		mg/L	1	10/29/2013 1:10:26 PM	10019
Magnesium	230	5.0		mg/L	5	10/29/2013 1:12:19 PM	10019
Manganese	0.22	0.0020	*	mg/L	1	10/31/2013 3:42:40 PM	10019
Potassium	280	20		mg/L	20	11/5/2013 5:55:56 PM	10019
Silver	ND	0.050		mg/L	10	10/31/2013 2:56:49 PM	10019
Sodium	6700	200		mg/L	200	11/5/2013 5:59:42 PM	10019
Zinc	ND	0.010		mg/L	1	10/29/2013 1:10:26 PM	10019
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.050	*	mg/L	50	10/29/2013 7:02:20 PM	R14427
Selenium	ND	0.050		mg/L	50	10/29/2013 7:02:20 PM	R14427
Uranium	ND	0.050		mg/L	50	10/29/2013 7:02:20 PM	R14427
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.050	*	mg/L	50	10/30/2013 3:17:26 PM	10019
Lead	ND	0.050		mg/L	50	10/30/2013 3:17:26 PM	10019
Selenium	ND	0.050		mg/L	50	10/30/2013 3:17:26 PM	10019

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-6

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:57:00 PM

Lab ID: 1310878-006

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	ND	0.050		mg/L	50	10/30/2013 3:17:26 PM	10019
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	10/22/2013 5:39:12 PM	9934
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Acenaphthylene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Aniline	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Anthracene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Azobenzene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Benz(a)anthracene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Benzo(a)pyrene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Benzo(b)fluoranthene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Benzo(k)fluoranthene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Benzoic acid	ND	40		µg/L	1	10/27/2013 7:50:50 PM	9923
Benzyl alcohol	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Butyl benzyl phthalate	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Carbazole	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
4-Chloroaniline	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
2-Chloronaphthalene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
2-Chlorophenol	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Chrysene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Di-n-butyl phthalate	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Di-n-octyl phthalate	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Dibenzofuran	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
1,2-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
1,3-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
1,4-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Diethyl phthalate	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-6

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:57:00 PM

Lab ID: 1310878-006

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dimethyl phthalate	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
2,4-Dichlorophenol	ND	20		µg/L	1	10/27/2013 7:50:50 PM	9923
2,4-Dimethylphenol	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/27/2013 7:50:50 PM	9923
2,4-Dinitrophenol	ND	20		µg/L	1	10/27/2013 7:50:50 PM	9923
2,4-Dinitrotoluene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
2,6-Dinitrotoluene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Fluoranthene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Fluorene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Hexachlorobenzene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Hexachlorobutadiene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Hexachloroethane	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Isophorone	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
1-Methylnaphthalene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
2-Methylnaphthalene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
2-Methylphenol	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
3+4-Methylphenol	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
N-Nitrosodimethylamine	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Naphthalene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
2-Nitroaniline	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
3-Nitroaniline	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
4-Nitroaniline	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Nitrobenzene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
2-Nitrophenol	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
4-Nitrophenol	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Pentachlorophenol	ND	20		µg/L	1	10/27/2013 7:50:50 PM	9923
Phenanthrene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Phenol	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Pyrene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Pyridine	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/27/2013 7:50:50 PM	9923
Surr: 2,4,6-Tribromophenol	31.7	23.3-111		%REC	1	10/27/2013 7:50:50 PM	9923
Surr: 2-Fluorobiphenyl	41.5	38.3-110		%REC	1	10/27/2013 7:50:50 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-6

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:57:00 PM

Lab ID: 1310878-006

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorophenol	35.4	22.7-98		%REC	1	10/27/2013 7:50:50 PM	9923
Surr: 4-Terphenyl-d14	48.5	52.1-116	S	%REC	1	10/27/2013 7:50:50 PM	9923
Surr: Nitrobenzene-d5	44.4	36.8-111		%REC	1	10/27/2013 7:50:50 PM	9923
Surr: Phenol-d5	28.7	23.4-74.9		%REC	1	10/27/2013 7:50:50 PM	9923
EPA METHOD 8260B: VOLATILES							Analyst: RAA
Benzene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
Toluene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
Ethylbenzene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
1,2,4-Trimethylbenzene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
1,3,5-Trimethylbenzene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
Naphthalene	ND	20		µg/L	10	10/21/2013 9:15:06 PM	R14226
1-Methylnaphthalene	ND	40		µg/L	10	10/21/2013 9:15:06 PM	R14226
2-Methylnaphthalene	ND	40		µg/L	10	10/21/2013 9:15:06 PM	R14226
Acetone	ND	100		µg/L	10	10/21/2013 9:15:06 PM	R14226
Bromobenzene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
Bromodichloromethane	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
Bromoform	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
Bromomethane	ND	30		µg/L	10	10/21/2013 9:15:06 PM	R14226
2-Butanone	ND	100		µg/L	10	10/21/2013 9:15:06 PM	R14226
Carbon disulfide	ND	100		µg/L	10	10/21/2013 9:15:06 PM	R14226
Carbon Tetrachloride	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
Chlorobenzene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
Chloroethane	ND	20		µg/L	10	10/21/2013 9:15:06 PM	R14226
Chloroform	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
Chloromethane	ND	30		µg/L	10	10/21/2013 9:15:06 PM	R14226
2-Chlorotoluene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
4-Chlorotoluene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
cis-1,2-DCE	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
cis-1,3-Dichloropropene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	10/21/2013 9:15:06 PM	R14226
Dibromochloromethane	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
Dibromomethane	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
1,2-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
1,3-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
1,4-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
Dichlorodifluoromethane	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-6

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:57:00 PM

Lab ID: 1310878-006

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: RAA
1,1-Dichloroethane	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
1,1-Dichloroethene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
1,2-Dichloropropane	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
1,3-Dichloropropane	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
2,2-Dichloropropane	ND	20		µg/L	10	10/21/2013 9:15:06 PM	R14226
1,1-Dichloropropene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
Hexachlorobutadiene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
2-Hexanone	ND	100		µg/L	10	10/21/2013 9:15:06 PM	R14226
Isopropylbenzene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
4-Isopropyltoluene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
4-Methyl-2-pentanone	ND	100		µg/L	10	10/21/2013 9:15:06 PM	R14226
Methylene Chloride	ND	30		µg/L	10	10/21/2013 9:15:06 PM	R14226
n-Butylbenzene	ND	30		µg/L	10	10/21/2013 9:15:06 PM	R14226
n-Propylbenzene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
sec-Butylbenzene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
Styrene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
tert-Butylbenzene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	10/21/2013 9:15:06 PM	R14226
Tetrachloroethene (PCE)	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
trans-1,2-DCE	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
trans-1,3-Dichloropropene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
1,2,3-Trichlorobenzene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
1,2,4-Trichlorobenzene	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
1,1,1-Trichloroethane	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
1,1,2-Trichloroethane	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
Trichloroethene (TCE)	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
Trichlorofluoromethane	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
1,2,3-Trichloropropane	ND	20		µg/L	10	10/21/2013 9:15:06 PM	R14226
Vinyl chloride	ND	10		µg/L	10	10/21/2013 9:15:06 PM	R14226
Xylenes, Total	ND	15		µg/L	10	10/21/2013 9:15:06 PM	R14226
Surr: 1,2-Dichloroethane-d4	97.4	70-130		%REC	10	10/21/2013 9:15:06 PM	R14226
Surr: 4-Bromofluorobenzene	98.9	70-130		%REC	10	10/21/2013 9:15:06 PM	R14226
Surr: Dibromofluoromethane	100	70-130		%REC	10	10/21/2013 9:15:06 PM	R14226
Surr: Toluene-d8	103	70-130		%REC	10	10/21/2013 9:15:06 PM	R14226

SM2510B: SPECIFIC CONDUCTANCE

Analyst: **JML**

Conductivity	38000	0.10		µmhos/cm	10	10/17/2013 11:16:20 PM	R14195

SM4500-H+B: PH

Analyst: **JML**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-6

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:57:00 PM

Lab ID: 1310878-006

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM4500-H+B: PH							Analyst: JML
pH	7.66	1.68	H	pH units	1	10/17/2013 3:43:04 PM	R14195

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-7

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:46:00 PM

Lab ID: 1310878-007

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	24	10	*	mg/L	100	10/18/2013 2:13:41 PM	R14218
Chloride	52000	2500		mg/L	5E	10/25/2013 10:08:29 PM	R14381
Bromide	26	10		mg/L	100	10/18/2013 2:13:41 PM	R14218
Phosphorus, Orthophosphate (As P)	ND	50	H	mg/L	100	10/25/2013 9:56:04 PM	R14381
Sulfate	11000	2500		mg/L	5E	10/25/2013 10:08:29 PM	R14381
Nitrate+Nitrite as N	ND	40		mg/L	200	10/26/2013 2:16:40 AM	R14381
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.096	0.010		mg/L	5	11/4/2013 7:51:04 PM	R14569
Cadmium	ND	0.010		mg/L	5	11/4/2013 7:51:04 PM	R14569
Chromium	ND	0.030		mg/L	5	11/4/2013 7:51:04 PM	R14569
Copper	ND	0.030		mg/L	5	11/4/2013 7:51:04 PM	R14569
Iron	ND	0.10		mg/L	5	11/4/2013 7:51:04 PM	R14569
Lead	ND	0.025		mg/L	5	11/4/2013 7:51:04 PM	R14569
Manganese	0.38	0.010	*	mg/L	5	10/31/2013 4:11:36 PM	R14514
Silver	ND	0.025		mg/L	5	11/4/2013 7:51:04 PM	R14569
Zinc	ND	0.050		mg/L	5	11/4/2013 7:51:04 PM	R14569
EPA METHOD 200.7: METALS							Analyst: ELS
Barium	0.099	0.010		mg/L	5	10/29/2013 1:16:27 PM	10019
Cadmium	ND	0.010		mg/L	5	10/29/2013 1:16:27 PM	10019
Calcium	770	20		mg/L	20	10/31/2013 2:29:01 PM	10019
Chromium	ND	0.030		mg/L	5	10/29/2013 1:16:27 PM	10019
Copper	ND	0.030		mg/L	5	10/29/2013 1:16:27 PM	10019
Iron	0.39	0.10	*	mg/L	5	10/29/2013 1:16:27 PM	10019
Magnesium	1200	20		mg/L	20	10/31/2013 2:29:01 PM	10019
Manganese	0.54	0.010	*	mg/L	5	10/31/2013 3:05:40 PM	10019
Potassium	1600	50		mg/L	50	11/5/2013 6:17:12 PM	10019
Silver	ND	0.10		mg/L	20	10/31/2013 2:29:01 PM	10019
Sodium	32000	500		mg/L	500	11/5/2013 6:20:59 PM	10019
Zinc	ND	0.050		mg/L	5	10/29/2013 1:16:27 PM	10019
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.13	0.050	*	mg/L	50	10/29/2013 7:04:59 PM	R14427
Selenium	0.19	0.050	*	mg/L	50	10/29/2013 7:04:59 PM	R14427
Uranium	ND	0.050		mg/L	50	10/29/2013 7:04:59 PM	R14427
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.14	0.050	*	mg/L	50	10/30/2013 3:19:49 PM	10019
Lead	ND	0.050		mg/L	50	10/30/2013 3:19:49 PM	10019
Selenium	0.16	0.050	*	mg/L	50	10/30/2013 3:19:49 PM	10019

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-7

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:46:00 PM

Lab ID: 1310878-007

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	ND	0.050		mg/L	50	10/30/2013 3:19:49 PM	10019
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	10/22/2013 5:40:57 PM	9934
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Acenaphthylene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Aniline	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Anthracene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Azobenzene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Benz(a)anthracene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Benzo(a)pyrene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Benzo(b)fluoranthene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Benzo(k)fluoranthene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Benzoic acid	ND	40		µg/L	1	10/27/2013 8:19:33 PM	9923
Benzyl alcohol	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Butyl benzyl phthalate	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Carbazole	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
4-Chloroaniline	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
2-Chloronaphthalene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
2-Chlorophenol	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Chrysene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Di-n-butyl phthalate	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Di-n-octyl phthalate	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Dibenzofuran	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
1,2-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
1,3-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
1,4-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Diethyl phthalate	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-7

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:46:00 PM

Lab ID: 1310878-007

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dimethyl phthalate	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
2,4-Dichlorophenol	ND	20		µg/L	1	10/27/2013 8:19:33 PM	9923
2,4-Dimethylphenol	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/27/2013 8:19:33 PM	9923
2,4-Dinitrophenol	ND	20		µg/L	1	10/27/2013 8:19:33 PM	9923
2,4-Dinitrotoluene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
2,6-Dinitrotoluene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Fluoranthene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Fluorene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Hexachlorobenzene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Hexachlorobutadiene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Hexachloroethane	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Isophorone	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
1-Methylnaphthalene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
2-Methylnaphthalene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
2-Methylphenol	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
3+4-Methylphenol	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
N-Nitrosodimethylamine	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Naphthalene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
2-Nitroaniline	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
3-Nitroaniline	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
4-Nitroaniline	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Nitrobenzene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
2-Nitrophenol	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
4-Nitrophenol	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Pentachlorophenol	ND	20		µg/L	1	10/27/2013 8:19:33 PM	9923
Phenanthrene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Phenol	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Pyrene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Pyridine	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/27/2013 8:19:33 PM	9923
Surr: 2,4,6-Tribromophenol	47.5	23.3-111		%REC	1	10/27/2013 8:19:33 PM	9923
Surr: 2-Fluorobiphenyl	61.8	38.3-110		%REC	1	10/27/2013 8:19:33 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.
	E Value above quantitation range
	J Analyte detected below quantitation limits
	O RSD is greater than RSDlimit
	R RPD outside accepted recovery limits
	S Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

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CLIENT: Western Refining Company

Client Sample ID: EP-7

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Lab ID: 1310878-007

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorophenol	50.8	22.7-98		%REC	1	10/27/2013 8:19:33 PM	9923
Surr: 4-Terphenyl-d14	53.4	52.1-116		%REC	1	10/27/2013 8:19:33 PM	9923
Surr: Nitrobenzene-d5	73.2	36.8-111		%REC	1	10/27/2013 8:19:33 PM	9923
Surr: Phenol-d5	53.7	23.4-74.9		%REC	1	10/27/2013 8:19:33 PM	9923
EPA METHOD 8260B: VOLATILES							Analyst: RAA
Benzene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
Toluene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
Ethylbenzene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
1,2,4-Trimethylbenzene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
1,3,5-Trimethylbenzene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
Naphthalene	ND	20		µg/L	10	10/21/2013 9:43:45 PM	R14226
1-Methylnaphthalene	ND	40		µg/L	10	10/21/2013 9:43:45 PM	R14226
2-Methylnaphthalene	ND	40		µg/L	10	10/21/2013 9:43:45 PM	R14226
Acetone	ND	100		µg/L	10	10/21/2013 9:43:45 PM	R14226
Bromobenzene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
Bromodichloromethane	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
Bromoform	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
Bromomethane	ND	30		µg/L	10	10/21/2013 9:43:45 PM	R14226
2-Butanone	ND	100		µg/L	10	10/21/2013 9:43:45 PM	R14226
Carbon disulfide	ND	100		µg/L	10	10/21/2013 9:43:45 PM	R14226
Carbon Tetrachloride	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
Chlorobenzene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
Chloroethane	ND	20		µg/L	10	10/21/2013 9:43:45 PM	R14226
Chloroform	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
Chloromethane	ND	30		µg/L	10	10/21/2013 9:43:45 PM	R14226
2-Chlorotoluene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
4-Chlorotoluene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
cis-1,2-DCE	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
cis-1,3-Dichloropropene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	10/21/2013 9:43:45 PM	R14226
Dibromochloromethane	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
Dibromomethane	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
1,2-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
1,3-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
1,4-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
Dichlorodifluoromethane	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-7

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:46:00 PM

Lab ID: 1310878-007

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: RAA
1,1-Dichloroethane	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
1,1-Dichloroethene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
1,2-Dichloropropane	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
1,3-Dichloropropane	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
2,2-Dichloropropane	ND	20		µg/L	10	10/21/2013 9:43:45 PM	R14226
1,1-Dichloropropene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
Hexachlorobutadiene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
2-Hexanone	ND	100		µg/L	10	10/21/2013 9:43:45 PM	R14226
Isopropylbenzene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
4-Isopropyltoluene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
4-Methyl-2-pentanone	ND	100		µg/L	10	10/21/2013 9:43:45 PM	R14226
Methylene Chloride	ND	30		µg/L	10	10/21/2013 9:43:45 PM	R14226
n-Butylbenzene	ND	30		µg/L	10	10/21/2013 9:43:45 PM	R14226
n-Propylbenzene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
sec-Butylbenzene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
Styrene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
tert-Butylbenzene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	10/21/2013 9:43:45 PM	R14226
Tetrachloroethene (PCE)	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
trans-1,2-DCE	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
trans-1,3-Dichloropropene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
1,2,3-Trichlorobenzene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
1,2,4-Trichlorobenzene	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
1,1,1-Trichloroethane	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
1,1,2-Trichloroethane	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
Trichloroethene (TCE)	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
Trichlorofluoromethane	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
1,2,3-Trichloropropane	ND	20		µg/L	10	10/21/2013 9:43:45 PM	R14226
Vinyl chloride	ND	10		µg/L	10	10/21/2013 9:43:45 PM	R14226
Xylenes, Total	ND	15		µg/L	10	10/21/2013 9:43:45 PM	R14226
Surr: 1,2-Dichloroethane-d4	97.2	70-130		%REC	10	10/21/2013 9:43:45 PM	R14226
Surr: 4-Bromofluorobenzene	99.6	70-130		%REC	10	10/21/2013 9:43:45 PM	R14226
Surr: Dibromofluoromethane	103	70-130		%REC	10	10/21/2013 9:43:45 PM	R14226
Surr: Toluene-d8	102	70-130		%REC	10	10/21/2013 9:43:45 PM	R14226

SM2510B: SPECIFIC CONDUCTANCE

Analyst: **JML**

Conductivity	170000	0.50	µmhos/cm	50	10/17/2013 11:20:31 PM	R14195

SM4500-H+B: PH

Analyst: **JML**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-7

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:46:00 PM

Lab ID: 1310878-007

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM4500-H+B: PH						Analyst: JML	
pH	7.68	1.68	H	pH units	1	10/17/2013 3:47:17 PM	R14195

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-8

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:29:00 PM

Lab ID: 1310878-008

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	33	10	*	mg/L	100	10/18/2013 3:03:19 PM	R14218
Chloride	110000	5000		mg/L	1E	10/25/2013 10:33:18 PM	R14381
Bromide	58	10		mg/L	100	10/18/2013 3:03:19 PM	R14218
Phosphorus, Orthophosphate (As P)	ND	50	H	mg/L	100	10/25/2013 10:20:53 PM	R14381
Sulfate	18000	5000		mg/L	1E	10/25/2013 10:33:18 PM	R14381
Nitrate+Nitrite as N	ND	40		mg/L	200	10/26/2013 2:29:04 AM	R14381
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.22	0.010		mg/L	5	11/5/2013 4:16:18 PM	R14586
Cadmium	ND	0.010		mg/L	5	11/5/2013 4:16:18 PM	R14586
Chromium	0.039	0.030		mg/L	5	11/5/2013 4:16:18 PM	R14586
Copper	ND	0.030		mg/L	5	11/5/2013 4:16:18 PM	R14586
Iron	ND	0.10		mg/L	5	11/4/2013 7:54:42 PM	R14569
Lead	0.064	0.025	*	mg/L	5	11/5/2013 4:16:18 PM	R14586
Manganese	18	0.040	*	mg/L	20	10/31/2013 4:15:29 PM	R14514
Silver	ND	0.10		mg/L	20	10/31/2013 4:15:29 PM	R14514
Zinc	ND	0.050		mg/L	5	11/5/2013 4:16:18 PM	R14586
EPA METHOD 200.7: METALS							Analyst: TES
Barium	0.24	0.020		mg/L	10	10/31/2013 3:07:47 PM	10019
Cadmium	ND	0.020		mg/L	10	10/31/2013 3:07:47 PM	10019
Calcium	850	10		mg/L	10	10/31/2013 3:07:47 PM	10019
Chromium	ND	0.060		mg/L	10	10/31/2013 3:07:47 PM	10019
Copper	ND	0.060		mg/L	10	10/31/2013 3:07:47 PM	10019
Iron	0.23	0.10		mg/L	5	10/29/2013 1:41:24 PM	10019
Magnesium	3500	50		mg/L	50	10/31/2013 2:39:50 PM	10019
Manganese	18	0.10	*	mg/L	50	10/31/2013 2:39:50 PM	10019
Potassium	4300	1000		mg/L	1E	11/5/2013 6:24:32 PM	10019
Silver	ND	0.050		mg/L	10	10/31/2013 3:07:47 PM	10019
Sodium	75000	1000		mg/L	1E	11/5/2013 6:24:32 PM	10019
Zinc	ND	0.10		mg/L	10	10/31/2013 3:07:47 PM	10019
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.37	0.050	*	mg/L	50	10/29/2013 7:07:39 PM	R14427
Selenium	0.47	0.050	*	mg/L	50	10/29/2013 7:07:39 PM	R14427
Uranium	ND	0.050		mg/L	50	10/29/2013 7:07:39 PM	R14427
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.35	0.10	*	mg/L	100	10/31/2013 12:27:57 PM	10019
Lead	ND	0.10		mg/L	100	10/31/2013 12:27:57 PM	10019
Selenium	0.30	0.10	*	mg/L	100	10/31/2013 12:27:57 PM	10019

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-8

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:29:00 PM

Lab ID: 1310878-008

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	ND	0.10		mg/L	100	10/31/2013 12:27:57 PM	10019
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	10/22/2013 5:42:41 PM	9934
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Acenaphthylene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Aniline	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Anthracene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Azobenzene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Benz(a)anthracene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Benzo(a)pyrene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Benzo(b)fluoranthene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Benzo(k)fluoranthene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Benzoic acid	ND	40		µg/L	1	10/27/2013 8:48:08 PM	9923
Benzyl alcohol	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Butyl benzyl phthalate	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Carbazole	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
4-Chloroaniline	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
2-Chloronaphthalene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
2-Chlorophenol	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Chrysene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Di-n-butyl phthalate	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Di-n-octyl phthalate	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Dibenzofuran	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
1,2-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
1,3-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
1,4-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Diethyl phthalate	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-8

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:29:00 PM

Lab ID: 1310878-008

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dimethyl phthalate	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
2,4-Dichlorophenol	ND	20		µg/L	1	10/27/2013 8:48:08 PM	9923
2,4-Dimethylphenol	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/27/2013 8:48:08 PM	9923
2,4-Dinitrophenol	ND	20		µg/L	1	10/27/2013 8:48:08 PM	9923
2,4-Dinitrotoluene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
2,6-Dinitrotoluene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Fluoranthene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Fluorene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Hexachlorobenzene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Hexachlorobutadiene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Hexachloroethane	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Isophorone	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
1-Methylnaphthalene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
2-Methylnaphthalene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
2-Methylphenol	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
3+4-Methylphenol	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
N-Nitrosodimethylamine	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Naphthalene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
2-Nitroaniline	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
3-Nitroaniline	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
4-Nitroaniline	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Nitrobenzene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
2-Nitrophenol	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
4-Nitrophenol	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Pentachlorophenol	ND	20		µg/L	1	10/27/2013 8:48:08 PM	9923
Phenanthrene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Phenol	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Pyrene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Pyridine	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/27/2013 8:48:08 PM	9923
Surr: 2,4,6-Tribromophenol	37.4	23.3-111		%REC	1	10/27/2013 8:48:08 PM	9923
Surr: 2-Fluorobiphenyl	60.0	38.3-110		%REC	1	10/27/2013 8:48:08 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-8

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:29:00 PM

Lab ID: 1310878-008

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorophenol	46.7	22.7-98		%REC	1	10/27/2013 8:48:08 PM	9923
Surr: 4-Terphenyl-d14	51.0	52.1-116	S	%REC	1	10/27/2013 8:48:08 PM	9923
Surr: Nitrobenzene-d5	65.3	36.8-111		%REC	1	10/27/2013 8:48:08 PM	9923
Surr: Phenol-d5	29.8	23.4-74.9		%REC	1	10/27/2013 8:48:08 PM	9923
EPA METHOD 8260B: VOLATILES							Analyst: RAA
Benzene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
Toluene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
Ethylbenzene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
1,2,4-Trimethylbenzene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
1,3,5-Trimethylbenzene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
Naphthalene	ND	20		µg/L	10	10/21/2013 10:12:23 PM	R14226
1-Methylnaphthalene	ND	40		µg/L	10	10/21/2013 10:12:23 PM	R14226
2-Methylnaphthalene	ND	40		µg/L	10	10/21/2013 10:12:23 PM	R14226
Acetone	ND	100		µg/L	10	10/21/2013 10:12:23 PM	R14226
Bromobenzene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
Bromodichloromethane	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
Bromoform	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
Bromomethane	ND	30		µg/L	10	10/21/2013 10:12:23 PM	R14226
2-Butanone	ND	100		µg/L	10	10/21/2013 10:12:23 PM	R14226
Carbon disulfide	ND	100		µg/L	10	10/21/2013 10:12:23 PM	R14226
Carbon Tetrachloride	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
Chlorobenzene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
Chloroethane	ND	20		µg/L	10	10/21/2013 10:12:23 PM	R14226
Chloroform	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
Chloromethane	ND	30		µg/L	10	10/21/2013 10:12:23 PM	R14226
2-Chlorotoluene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
4-Chlorotoluene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
cis-1,2-DCE	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
cis-1,3-Dichloropropene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	10/21/2013 10:12:23 PM	R14226
Dibromochloromethane	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
Dibromomethane	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
1,2-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
1,3-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
1,4-Dichlorobenzene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
Dichlorodifluoromethane	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-8

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:29:00 PM

Lab ID: 1310878-008

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: RAA
1,1-Dichloroethane	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
1,1-Dichloroethene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
1,2-Dichloropropane	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
1,3-Dichloropropane	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
2,2-Dichloropropane	ND	20		µg/L	10	10/21/2013 10:12:23 PM	R14226
1,1-Dichloropropene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
Hexachlorobutadiene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
2-Hexanone	ND	100		µg/L	10	10/21/2013 10:12:23 PM	R14226
Isopropylbenzene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
4-Isopropyltoluene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
4-Methyl-2-pentanone	ND	100		µg/L	10	10/21/2013 10:12:23 PM	R14226
Methylene Chloride	ND	30		µg/L	10	10/21/2013 10:12:23 PM	R14226
n-Butylbenzene	ND	30		µg/L	10	10/21/2013 10:12:23 PM	R14226
n-Propylbenzene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
sec-Butylbenzene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
Styrene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
tert-Butylbenzene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	10/21/2013 10:12:23 PM	R14226
Tetrachloroethene (PCE)	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
trans-1,2-DCE	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
trans-1,3-Dichloropropene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
1,2,3-Trichlorobenzene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
1,2,4-Trichlorobenzene	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
1,1,1-Trichloroethane	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
1,1,2-Trichloroethane	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
Trichloroethene (TCE)	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
Trichlorofluoromethane	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
1,2,3-Trichloropropane	ND	20		µg/L	10	10/21/2013 10:12:23 PM	R14226
Vinyl chloride	ND	10		µg/L	10	10/21/2013 10:12:23 PM	R14226
Xylenes, Total	ND	15		µg/L	10	10/21/2013 10:12:23 PM	R14226
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	10	10/21/2013 10:12:23 PM	R14226
Surr: 4-Bromofluorobenzene	103	70-130		%REC	10	10/21/2013 10:12:23 PM	R14226
Surr: Dibromofluoromethane	105	70-130		%REC	10	10/21/2013 10:12:23 PM	R14226
Surr: Toluene-d8	102	70-130		%REC	10	10/21/2013 10:12:23 PM	R14226

SM2510B: SPECIFIC CONDUCTANCE

Analyst: **JML**

Conductivity	370000	0.50	µmhos/cm	50	10/17/2013 11:24:53 PM	R14195

SM4500-H+B: PH

Analyst: **JML**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-8

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:29:00 PM

Lab ID: 1310878-008

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM4500-H+B: PH						Analyst: JML	
pH	7.07	1.68	H	pH units	1	10/17/2013 3:51:30 PM	R14195

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-9

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:06:00 PM

Lab ID: 1310878-009

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	15	10	*	mg/L	100	10/18/2013 3:28:08 PM	R14218
Chloride	55000	5000		mg/L	1E	10/26/2013 12:00:11 AM	R14381
Bromide	21	10		mg/L	100	10/18/2013 3:28:08 PM	R14218
Phosphorus, Orthophosphate (As P)	ND	50	H	mg/L	100	10/25/2013 11:35:22 PM	R14381
Sulfate	8100	5000		mg/L	1E	10/26/2013 12:00:11 AM	R14381
Nitrate+Nitrite as N	ND	40		mg/L	200	10/26/2013 2:41:29 AM	R14381
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.19	0.010		mg/L	5	11/4/2013 7:58:22 PM	R14569
Cadmium	ND	0.010		mg/L	5	11/4/2013 7:58:22 PM	R14569
Chromium	ND	0.030		mg/L	5	11/4/2013 7:58:22 PM	R14569
Copper	ND	0.030		mg/L	5	11/4/2013 7:58:22 PM	R14569
Iron	ND	0.10		mg/L	5	11/4/2013 7:58:22 PM	R14569
Lead	ND	0.025		mg/L	5	11/4/2013 7:58:22 PM	R14569
Manganese	3.3	0.010	*	mg/L	5	10/31/2013 4:17:35 PM	R14514
Silver	ND	0.025		mg/L	5	11/4/2013 7:58:22 PM	R14569
Zinc	ND	0.050		mg/L	5	11/4/2013 7:58:22 PM	R14569
EPA METHOD 200.7: METALS							Analyst: ELS
Barium	0.18	0.010		mg/L	5	10/29/2013 1:33:07 PM	10019
Cadmium	ND	0.010		mg/L	5	10/29/2013 1:33:07 PM	10019
Calcium	1600	20		mg/L	20	10/31/2013 2:41:50 PM	10019
Chromium	ND	0.030		mg/L	5	10/29/2013 1:33:07 PM	10019
Copper	ND	0.030		mg/L	5	10/29/2013 1:33:07 PM	10019
Iron	0.10	0.10		mg/L	5	10/29/2013 1:33:07 PM	10019
Magnesium	1200	20		mg/L	20	10/31/2013 2:41:50 PM	10019
Manganese	3.3	0.010	*	mg/L	5	11/5/2013 6:28:04 PM	10019
Potassium	1200	50		mg/L	50	11/5/2013 6:42:40 PM	10019
Silver	ND	0.10		mg/L	20	10/31/2013 2:41:50 PM	10019
Sodium	33000	500		mg/L	500	11/5/2013 6:46:27 PM	10019
Zinc	ND	0.050		mg/L	5	10/29/2013 1:33:07 PM	10019
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.10	0.050	*	mg/L	50	10/29/2013 7:10:18 PM	R14427
Selenium	0.15	0.050	*	mg/L	50	10/29/2013 7:10:18 PM	R14427
Uranium	ND	0.050		mg/L	50	10/29/2013 7:10:18 PM	R14427
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.10	*	mg/L	100	10/31/2013 12:30:20 PM	10019
Lead	ND	0.050		mg/L	50	10/30/2013 3:24:35 PM	10019
Selenium	0.11	0.10	*	mg/L	100	10/31/2013 12:30:20 PM	10019

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-9

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:06:00 PM

Lab ID: 1310878-009

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	ND	0.050		mg/L	50	10/30/2013 3:24:35 PM	10019
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	10/22/2013 5:44:27 PM	9934
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Acenaphthylene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Aniline	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Anthracene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Azobenzene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Benz(a)anthracene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Benzo(a)pyrene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Benzo(b)fluoranthene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Benzo(k)fluoranthene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Benzoic acid	ND	40		µg/L	1	10/27/2013 9:16:45 PM	9923
Benzyl alcohol	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Butyl benzyl phthalate	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Carbazole	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
4-Chloroaniline	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
2-Chloronaphthalene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
2-Chlorophenol	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Chrysene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Di-n-butyl phthalate	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Di-n-octyl phthalate	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Dibenzofuran	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
1,2-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
1,3-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
1,4-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Diethyl phthalate	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-9

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:06:00 PM

Lab ID: 1310878-009

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dimethyl phthalate	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
2,4-Dichlorophenol	ND	20		µg/L	1	10/27/2013 9:16:45 PM	9923
2,4-Dimethylphenol	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/27/2013 9:16:45 PM	9923
2,4-Dinitrophenol	ND	20		µg/L	1	10/27/2013 9:16:45 PM	9923
2,4-Dinitrotoluene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
2,6-Dinitrotoluene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Fluoranthene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Fluorene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Hexachlorobenzene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Hexachlorobutadiene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Hexachloroethane	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Isophorone	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
1-Methylnaphthalene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
2-Methylnaphthalene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
2-Methylphenol	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
3+4-Methylphenol	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
N-Nitrosodimethylamine	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Naphthalene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
2-Nitroaniline	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
3-Nitroaniline	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
4-Nitroaniline	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Nitrobenzene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
2-Nitrophenol	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
4-Nitrophenol	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Pentachlorophenol	ND	20		µg/L	1	10/27/2013 9:16:45 PM	9923
Phenanthrene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Phenol	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Pyrene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Pyridine	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/27/2013 9:16:45 PM	9923
Surr: 2,4,6-Tribromophenol	52.4	23.3-111		%REC	1	10/27/2013 9:16:45 PM	9923
Surr: 2-Fluorobiphenyl	51.5	38.3-110		%REC	1	10/27/2013 9:16:45 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-9

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:06:00 PM

Lab ID: 1310878-009

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Surr: 2-Fluorophenol	48.8	22.7-98		%REC	1	10/27/2013 9:16:45 PM	9923
Surr: 4-Terphenyl-d14	65.2	52.1-116		%REC	1	10/27/2013 9:16:45 PM	9923
Surr: Nitrobenzene-d5	58.1	36.8-111		%REC	1	10/27/2013 9:16:45 PM	9923
Surr: Phenol-d5	50.1	23.4-74.9		%REC	1	10/27/2013 9:16:45 PM	9923
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Benzene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
Toluene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
Ethylbenzene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
1,2,4-Trimethylbenzene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
1,3,5-Trimethylbenzene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
Naphthalene	ND	20		µg/L	10	10/18/2013 11:12:28 PM	R14207
1-Methylnaphthalene	ND	40		µg/L	10	10/18/2013 11:12:28 PM	R14207
2-Methylnaphthalene	ND	40		µg/L	10	10/18/2013 11:12:28 PM	R14207
Acetone	ND	100		µg/L	10	10/18/2013 11:12:28 PM	R14207
Bromobenzene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
Bromodichloromethane	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
Bromoform	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
Bromomethane	ND	30		µg/L	10	10/18/2013 11:12:28 PM	R14207
2-Butanone	ND	100		µg/L	10	10/18/2013 11:12:28 PM	R14207
Carbon disulfide	ND	100		µg/L	10	10/18/2013 11:12:28 PM	R14207
Carbon Tetrachloride	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
Chlorobenzene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
Chloroethane	ND	20		µg/L	10	10/18/2013 11:12:28 PM	R14207
Chloroform	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
Chloromethane	ND	30		µg/L	10	10/18/2013 11:12:28 PM	R14207
2-Chlorotoluene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
4-Chlorotoluene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
cis-1,2-DCE	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
cis-1,3-Dichloropropene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	10/18/2013 11:12:28 PM	R14207
Dibromochloromethane	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
Dibromomethane	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
1,2-Dichlorobenzene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
1,3-Dichlorobenzene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
1,4-Dichlorobenzene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
Dichlorodifluoromethane	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207

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	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
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	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-9

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:06:00 PM

Lab ID: 1310878-009

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloroethane	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
1,1-Dichloroethene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
1,2-Dichloropropane	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
1,3-Dichloropropane	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
2,2-Dichloropropane	ND	20		µg/L	10	10/18/2013 11:12:28 PM	R14207
1,1-Dichloropropene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
Hexachlorobutadiene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
2-Hexanone	ND	100		µg/L	10	10/18/2013 11:12:28 PM	R14207
Isopropylbenzene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
4-Isopropyltoluene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
4-Methyl-2-pentanone	ND	100		µg/L	10	10/18/2013 11:12:28 PM	R14207
Methylene Chloride	ND	30		µg/L	10	10/18/2013 11:12:28 PM	R14207
n-Butylbenzene	ND	30		µg/L	10	10/18/2013 11:12:28 PM	R14207
n-Propylbenzene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
sec-Butylbenzene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
Styrene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
tert-Butylbenzene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	10/18/2013 11:12:28 PM	R14207
Tetrachloroethene (PCE)	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
trans-1,2-DCE	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
trans-1,3-Dichloropropene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
1,2,3-Trichlorobenzene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
1,2,4-Trichlorobenzene	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
1,1,1-Trichloroethane	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
1,1,2-Trichloroethane	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
Trichloroethene (TCE)	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
Trichlorofluoromethane	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
1,2,3-Trichloropropane	ND	20		µg/L	10	10/18/2013 11:12:28 PM	R14207
Vinyl chloride	ND	10		µg/L	10	10/18/2013 11:12:28 PM	R14207
Xylenes, Total	ND	15		µg/L	10	10/18/2013 11:12:28 PM	R14207
Surr: 1,2-Dichloroethane-d4	98.5	70-130		%REC	10	10/18/2013 11:12:28 PM	R14207
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	10	10/18/2013 11:12:28 PM	R14207
Surr: Dibromofluoromethane	102	70-130		%REC	10	10/18/2013 11:12:28 PM	R14207
Surr: Toluene-d8	99.7	70-130		%REC	10	10/18/2013 11:12:28 PM	R14207

SM2510B: SPECIFIC CONDUCTANCE

Analyst: **JML**

Conductivity	180000	0.50	µmhos/cm	50	10/17/2013 11:29:20 PM	R14195

SM4500-H+B: PH

Analyst: **JML**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-9

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 12:06:00 PM

Lab ID: 1310878-009

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM4500-H+B: PH							Analyst: JML
pH	7.45	1.68	H	pH units	1	10/17/2013 3:55:40 PM	R14195

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-11

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 1:21:00 PM

Lab ID: 1310878-010

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	22	1.0	*	mg/L	10	10/18/2013 3:40:32 PM	R14218
Chloride	11000	500		mg/L	1E	10/25/2013 10:58:08 PM	R14381
Bromide	5.9	1.0		mg/L	10	10/18/2013 3:40:32 PM	R14218
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	10/28/2013 8:36:42 PM	R14412
Sulfate	4500	500		mg/L	1E	10/25/2013 10:58:08 PM	R14381
Nitrate+Nitrite as N	ND	10		mg/L	50	10/26/2013 2:53:54 AM	R14381
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.067	0.0020		mg/L	1	10/29/2013 3:31:14 PM	R14439
Cadmium	ND	0.0020		mg/L	1	10/29/2013 3:31:14 PM	R14439
Chromium	0.0096	0.0060		mg/L	1	10/29/2013 3:31:14 PM	R14439
Copper	ND	0.0060		mg/L	1	10/29/2013 3:31:14 PM	R14439
Iron	0.21	0.020		mg/L	1	10/29/2013 3:31:14 PM	R14439
Lead	ND	0.0050		mg/L	1	11/4/2013 8:01:58 PM	R14569
Manganese	0.41	0.0020	*	mg/L	1	11/4/2013 8:01:58 PM	R14569
Silver	ND	0.050		mg/L	10	11/12/2013 7:22:46 PM	R14758
Zinc	ND	0.010		mg/L	1	10/29/2013 3:31:14 PM	R14439
EPA METHOD 200.7: METALS							Analyst: ELS
Barium	0.072	0.0020		mg/L	1	10/29/2013 1:43:28 PM	10019
Cadmium	ND	0.0020		mg/L	1	10/29/2013 1:43:28 PM	10019
Calcium	360	5.0		mg/L	5	10/29/2013 1:45:31 PM	10019
Chromium	0.011	0.0060		mg/L	1	10/29/2013 1:43:28 PM	10019
Copper	ND	0.0060		mg/L	1	10/29/2013 1:43:28 PM	10019
Iron	0.42	0.020	*	mg/L	1	10/29/2013 1:43:28 PM	10019
Magnesium	240	5.0		mg/L	5	10/29/2013 1:45:31 PM	10019
Manganese	0.41	0.020	*	mg/L	10	10/31/2013 3:18:05 PM	10019
Potassium	460	20		mg/L	20	11/5/2013 7:03:58 PM	10019
Silver	ND	0.025		mg/L	5	10/29/2013 1:45:31 PM	10019
Sodium	8000	200		mg/L	200	11/5/2013 7:07:43 PM	10019
Zinc	ND	0.010		mg/L	1	10/29/2013 1:43:28 PM	10019
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.050	*	mg/L	50	10/29/2013 7:12:57 PM	R14427
Selenium	ND	0.050		mg/L	50	10/29/2013 7:12:57 PM	R14427
Uranium	ND	0.050		mg/L	50	10/29/2013 7:12:57 PM	R14427
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.050	*	mg/L	50	10/30/2013 3:31:48 PM	10019
Lead	ND	0.050		mg/L	50	10/30/2013 3:31:48 PM	10019
Selenium	ND	0.050		mg/L	50	10/30/2013 3:31:48 PM	10019

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-11

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 1:21:00 PM

Lab ID: 1310878-010

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	ND	0.050		mg/L	50	10/30/2013 3:31:48 PM	10019
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	10/22/2013 5:46:14 PM	9934
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Acenaphthylene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Aniline	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Anthracene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Azobenzene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Benz(a)anthracene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Benzo(a)pyrene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Benzo(b)fluoranthene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Benzo(k)fluoranthene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Benzoic acid	ND	40		µg/L	1	10/27/2013 9:45:24 PM	9923
Benzyl alcohol	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Butyl benzyl phthalate	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Carbazole	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
4-Chloroaniline	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
2-Chloronaphthalene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
2-Chlorophenol	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Chrysene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Di-n-butyl phthalate	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Di-n-octyl phthalate	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Dibenzofuran	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
1,2-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
1,3-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
1,4-Dichlorobenzene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Diethyl phthalate	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923

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Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-11

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 1:21:00 PM

Lab ID: 1310878-010

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dimethyl phthalate	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
2,4-Dichlorophenol	ND	20		µg/L	1	10/27/2013 9:45:24 PM	9923
2,4-Dimethylphenol	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/27/2013 9:45:24 PM	9923
2,4-Dinitrophenol	ND	20		µg/L	1	10/27/2013 9:45:24 PM	9923
2,4-Dinitrotoluene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
2,6-Dinitrotoluene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Fluoranthene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Fluorene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Hexachlorobenzene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Hexachlorobutadiene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Hexachloroethane	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Isophorone	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
1-Methylnaphthalene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
2-Methylnaphthalene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
2-Methylphenol	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
3+4-Methylphenol	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
N-Nitrosodimethylamine	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Naphthalene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
2-Nitroaniline	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
3-Nitroaniline	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
4-Nitroaniline	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Nitrobenzene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
2-Nitrophenol	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
4-Nitrophenol	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Pentachlorophenol	ND	20		µg/L	1	10/27/2013 9:45:24 PM	9923
Phenanthrene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Phenol	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Pyrene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Pyridine	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/27/2013 9:45:24 PM	9923
Surr: 2,4,6-Tribromophenol	44.8	23.3-111		%REC	1	10/27/2013 9:45:24 PM	9923
Surr: 2-Fluorobiphenyl	54.8	38.3-110		%REC	1	10/27/2013 9:45:24 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-11

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 1:21:00 PM

Lab ID: 1310878-010

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Surr: 2-Fluorophenol	47.5	22.7-98		%REC	1	10/27/2013 9:45:24 PM	9923
Surr: 4-Terphenyl-d14	55.8	52.1-116		%REC	1	10/27/2013 9:45:24 PM	9923
Surr: Nitrobenzene-d5	61.7	36.8-111		%REC	1	10/27/2013 9:45:24 PM	9923
Surr: Phenol-d5	39.4	23.4-74.9		%REC	1	10/27/2013 9:45:24 PM	9923
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
Toluene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
Ethylbenzene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
1,2,4-Trimethylbenzene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
1,3,5-Trimethylbenzene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
Naphthalene	ND	20		µg/L	10	10/18/2013 11:41:06 PM	R14207
1-Methylnaphthalene	ND	40		µg/L	10	10/18/2013 11:41:06 PM	R14207
2-Methylnaphthalene	ND	40		µg/L	10	10/18/2013 11:41:06 PM	R14207
Acetone	ND	100		µg/L	10	10/18/2013 11:41:06 PM	R14207
Bromobenzene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
Bromodichloromethane	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
Bromoform	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
Bromomethane	ND	30		µg/L	10	10/18/2013 11:41:06 PM	R14207
2-Butanone	ND	100		µg/L	10	10/18/2013 11:41:06 PM	R14207
Carbon disulfide	ND	100		µg/L	10	10/18/2013 11:41:06 PM	R14207
Carbon Tetrachloride	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
Chlorobenzene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
Chloroethane	ND	20		µg/L	10	10/18/2013 11:41:06 PM	R14207
Chloroform	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
Chloromethane	ND	30		µg/L	10	10/18/2013 11:41:06 PM	R14207
2-Chlorotoluene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
4-Chlorotoluene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
cis-1,2-DCE	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
cis-1,3-Dichloropropene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	10/18/2013 11:41:06 PM	R14207
Dibromochloromethane	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
Dibromomethane	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
1,2-Dichlorobenzene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
1,3-Dichlorobenzene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
1,4-Dichlorobenzene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
Dichlorodifluoromethane	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207

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	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-11

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 1:21:00 PM

Lab ID: 1310878-010

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloroethane	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
1,1-Dichloroethene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
1,2-Dichloropropane	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
1,3-Dichloropropane	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
2,2-Dichloropropane	ND	20		µg/L	10	10/18/2013 11:41:06 PM	R14207
1,1-Dichloropropene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
Hexachlorobutadiene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
2-Hexanone	ND	100		µg/L	10	10/18/2013 11:41:06 PM	R14207
Isopropylbenzene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
4-Isopropyltoluene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
4-Methyl-2-pentanone	ND	100		µg/L	10	10/18/2013 11:41:06 PM	R14207
Methylene Chloride	ND	30		µg/L	10	10/18/2013 11:41:06 PM	R14207
n-Butylbenzene	ND	30		µg/L	10	10/18/2013 11:41:06 PM	R14207
n-Propylbenzene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
sec-Butylbenzene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
Styrene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
tert-Butylbenzene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	10/18/2013 11:41:06 PM	R14207
Tetrachloroethene (PCE)	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
trans-1,2-DCE	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
trans-1,3-Dichloropropene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
1,2,3-Trichlorobenzene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
1,2,4-Trichlorobenzene	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
1,1,1-Trichloroethane	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
1,1,2-Trichloroethane	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
Trichloroethene (TCE)	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
Trichlorofluoromethane	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
1,2,3-Trichloropropane	ND	20		µg/L	10	10/18/2013 11:41:06 PM	R14207
Vinyl chloride	ND	10		µg/L	10	10/18/2013 11:41:06 PM	R14207
Xylenes, Total	ND	15		µg/L	10	10/18/2013 11:41:06 PM	R14207
Surr: 1,2-Dichloroethane-d4	96.6	70-130		%REC	10	10/18/2013 11:41:06 PM	R14207
Surr: 4-Bromofluorobenzene	97.5	70-130		%REC	10	10/18/2013 11:41:06 PM	R14207
Surr: Dibromofluoromethane	101	70-130		%REC	10	10/18/2013 11:41:06 PM	R14207
Surr: Toluene-d8	103	70-130		%REC	10	10/18/2013 11:41:06 PM	R14207

SM2510B: SPECIFIC CONDUCTANCE

Analyst: JML

Conductivity	81000	0.10	µmhos/cm	10	10/17/2013 11:33:49 PM	R14195

SM4500-H+B: PH

Analyst: JML

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-11

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 1:21:00 PM

Lab ID: 1310878-010

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM4500-H+B: PH						Analyst: JML	
pH	7.92	1.68	H	pH units	1	10/17/2013 3:59:12 PM	R14195

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-12A

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 1:58:00 PM

Lab ID: 1310878-011

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	43	10	*	mg/L	100	10/18/2013 4:17:46 PM	R14218
Chloride	1900	50		mg/L	100	10/18/2013 4:17:46 PM	R14218
Bromide	2.2	1.0		mg/L	10	10/18/2013 4:05:21 PM	R14218
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	10/26/2013 12:12:35 AM	R14381
Sulfate	1300	50		mg/L	100	10/18/2013 4:17:46 PM	R14218
Nitrate+Nitrite as N	ND	2.0		mg/L	10	10/18/2013 8:50:47 PM	R14218
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.066	0.0020		mg/L	1	10/29/2013 3:33:07 PM	R14439
Cadmium	ND	0.0020		mg/L	1	10/29/2013 3:33:07 PM	R14439
Chromium	0.0098	0.0060		mg/L	1	10/29/2013 3:33:07 PM	R14439
Copper	ND	0.0060		mg/L	1	10/29/2013 3:33:07 PM	R14439
Iron	0.53	0.020	*	mg/L	1	10/29/2013 3:33:07 PM	R14439
Lead	ND	0.0050		mg/L	1	11/4/2013 8:05:31 PM	R14569
Manganese	0.37	0.0020	*	mg/L	1	10/31/2013 4:21:29 PM	R14514
Silver	ND	0.025		mg/L	5	11/12/2013 7:24:43 PM	R14758
Zinc	0.013	0.010		mg/L	1	10/29/2013 3:33:07 PM	R14439
EPA METHOD 200.7: METALS							Analyst: ELS
Barium	0.072	0.0020		mg/L	1	10/29/2013 1:56:10 PM	10019
Cadmium	ND	0.0020		mg/L	1	10/29/2013 1:56:10 PM	10019
Calcium	120	5.0		mg/L	5	10/29/2013 1:58:15 PM	10019
Chromium	0.011	0.0060		mg/L	1	10/29/2013 1:56:10 PM	10019
Copper	ND	0.0060		mg/L	1	10/29/2013 1:56:10 PM	10019
Iron	0.65	0.020	*	mg/L	1	10/29/2013 1:56:10 PM	10019
Magnesium	45	1.0		mg/L	1	10/29/2013 1:56:10 PM	10019
Manganese	0.38	0.0020	*	mg/L	1	10/31/2013 3:46:26 PM	10019
Potassium	140	50		mg/L	50	11/5/2013 7:11:14 PM	10019
Silver	ND	0.025		mg/L	5	10/29/2013 1:58:15 PM	10019
Sodium	1700	50		mg/L	50	11/5/2013 7:11:14 PM	10019
Zinc	0.016	0.010		mg/L	1	10/29/2013 1:56:10 PM	10019
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.050	*	mg/L	50	10/29/2013 7:15:37 PM	R14427
Selenium	ND	0.050		mg/L	50	10/29/2013 7:15:37 PM	R14427
Uranium	ND	0.050		mg/L	50	10/29/2013 7:15:37 PM	R14427
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.050	*	mg/L	50	10/30/2013 3:34:11 PM	10019
Lead	ND	0.050		mg/L	50	10/30/2013 3:34:11 PM	10019
Selenium	ND	0.050		mg/L	50	10/30/2013 3:34:11 PM	10019

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-12A

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 1:58:00 PM

Lab ID: 1310878-011

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	ND	0.050		mg/L	50	10/30/2013 3:34:11 PM	10019
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	10/22/2013 5:48:00 PM	9934
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Acenaphthylene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Aniline	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Anthracene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Azobenzene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Benz(a)anthracene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Benzo(a)pyrene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Benzo(b)fluoranthene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Benzo(g,h,i)perylene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Benzo(k)fluoranthene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Benzoic acid	ND	200		µg/L	1	10/27/2013 10:13:56 PM	9923
Benzyl alcohol	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Bis(2-chloroethyl)ether	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
4-Bromophenyl phenyl ether	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Butyl benzyl phthalate	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Carbazole	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
4-Chloro-3-methylphenol	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
4-Chloroaniline	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
2-Chloronaphthalene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
2-Chlorophenol	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Chrysene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Di-n-butyl phthalate	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Di-n-octyl phthalate	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Dibenz(a,h)anthracene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Dibenzofuran	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
1,2-Dichlorobenzene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
1,3-Dichlorobenzene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
1,4-Dichlorobenzene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
3,3'-Dichlorobenzidine	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Diethyl phthalate	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
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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 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-12A

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 1:58:00 PM

Lab ID: 1310878-011

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dimethyl phthalate	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
2,4-Dichlorophenol	ND	100		µg/L	1	10/27/2013 10:13:56 PM	9923
2,4-Dimethylphenol	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	10/27/2013 10:13:56 PM	9923
2,4-Dinitrophenol	ND	100		µg/L	1	10/27/2013 10:13:56 PM	9923
2,4-Dinitrotoluene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
2,6-Dinitrotoluene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Fluoranthene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Fluorene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Hexachlorobenzene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Hexachlorobutadiene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Hexachlorocyclopentadiene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Hexachloroethane	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Isophorone	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
1-Methylnaphthalene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
2-Methylnaphthalene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
2-Methylphenol	100	50		µg/L	1	10/27/2013 10:13:56 PM	9923
3+4-Methylphenol	160	50		µg/L	1	10/27/2013 10:13:56 PM	9923
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
N-Nitrosodimethylamine	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
N-Nitrosodiphenylamine	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Naphthalene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
2-Nitroaniline	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
3-Nitroaniline	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
4-Nitroaniline	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Nitrobenzene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
2-Nitrophenol	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
4-Nitrophenol	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Pentachlorophenol	ND	100		µg/L	1	10/27/2013 10:13:56 PM	9923
Phenanthrene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Phenol	350	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Pyrene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Pyridine	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
1,2,4-Trichlorobenzene	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
2,4,5-Trichlorophenol	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
2,4,6-Trichlorophenol	ND	50		µg/L	1	10/27/2013 10:13:56 PM	9923
Surr: 2,4,6-Tribromophenol	86.4	23.3-111		%REC	1	10/27/2013 10:13:56 PM	9923
Surr: 2-Fluorobiphenyl	83.0	38.3-110		%REC	1	10/27/2013 10:13:56 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-12A

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 1:58:00 PM

Lab ID: 1310878-011

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES					Analyst: DAM		
Surr: 2-Fluorophenol	75.2	22.7-98		%REC	1	10/27/2013 10:13:56 PM	9923
Surr: 4-Terphenyl-d14	93.1	52.1-116		%REC	1	10/27/2013 10:13:56 PM	9923
Surr: Nitrobenzene-d5	89.4	36.8-111		%REC	1	10/27/2013 10:13:56 PM	9923
Surr: Phenol-d5	57.6	23.4-74.9		%REC	1	10/27/2013 10:13:56 PM	9923
EPA METHOD 8260B: VOLATILES					Analyst: cadg		
Benzene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
Toluene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
Ethylbenzene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
1,2,4-Trimethylbenzene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
1,3,5-Trimethylbenzene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
Naphthalene	ND	20		µg/L	10	10/19/2013 12:09:46 AM	R14207
1-Methylnaphthalene	ND	40		µg/L	10	10/19/2013 12:09:46 AM	R14207
2-Methylnaphthalene	ND	40		µg/L	10	10/19/2013 12:09:46 AM	R14207
Acetone	ND	100		µg/L	10	10/19/2013 12:09:46 AM	R14207
Bromobenzene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
Bromodichloromethane	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
Bromoform	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
Bromomethane	ND	30		µg/L	10	10/19/2013 12:09:46 AM	R14207
2-Butanone	ND	100		µg/L	10	10/19/2013 12:09:46 AM	R14207
Carbon disulfide	ND	100		µg/L	10	10/19/2013 12:09:46 AM	R14207
Carbon Tetrachloride	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
Chlorobenzene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
Chloroethane	ND	20		µg/L	10	10/19/2013 12:09:46 AM	R14207
Chloroform	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
Chloromethane	ND	30		µg/L	10	10/19/2013 12:09:46 AM	R14207
2-Chlorotoluene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
4-Chlorotoluene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
cis-1,2-DCE	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
cis-1,3-Dichloropropene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	10/19/2013 12:09:46 AM	R14207
Dibromochloromethane	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
Dibromomethane	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
1,2-Dichlorobenzene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
1,3-Dichlorobenzene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
1,4-Dichlorobenzene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
Dichlorodifluoromethane	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-12A

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 1:58:00 PM

Lab ID: 1310878-011

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloroethane	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
1,1-Dichloroethene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
1,2-Dichloropropane	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
1,3-Dichloropropane	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
2,2-Dichloropropane	ND	20		µg/L	10	10/19/2013 12:09:46 AM	R14207
1,1-Dichloropropene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
Hexachlorobutadiene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
2-Hexanone	ND	100		µg/L	10	10/19/2013 12:09:46 AM	R14207
Isopropylbenzene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
4-Isopropyltoluene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
4-Methyl-2-pentanone	ND	100		µg/L	10	10/19/2013 12:09:46 AM	R14207
Methylene Chloride	ND	30		µg/L	10	10/19/2013 12:09:46 AM	R14207
n-Butylbenzene	ND	30		µg/L	10	10/19/2013 12:09:46 AM	R14207
n-Propylbenzene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
sec-Butylbenzene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
Styrene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
tert-Butylbenzene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	10/19/2013 12:09:46 AM	R14207
Tetrachloroethene (PCE)	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
trans-1,2-DCE	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
trans-1,3-Dichloropropene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
1,2,3-Trichlorobenzene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
1,2,4-Trichlorobenzene	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
1,1,1-Trichloroethane	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
1,1,2-Trichloroethane	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
Trichloroethene (TCE)	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
Trichlorofluoromethane	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
1,2,3-Trichloropropane	ND	20		µg/L	10	10/19/2013 12:09:46 AM	R14207
Vinyl chloride	ND	10		µg/L	10	10/19/2013 12:09:46 AM	R14207
Xylenes, Total	ND	15		µg/L	10	10/19/2013 12:09:46 AM	R14207
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	10	10/19/2013 12:09:46 AM	R14207
Surr: 4-Bromofluorobenzene	99.0	70-130		%REC	10	10/19/2013 12:09:46 AM	R14207
Surr: Dibromofluoromethane	106	70-130		%REC	10	10/19/2013 12:09:46 AM	R14207
Surr: Toluene-d8	97.2	70-130		%REC	10	10/19/2013 12:09:46 AM	R14207

SM2510B: SPECIFIC CONDUCTANCE

Analyst: JML

Conductivity	8600	0.010		µmhos/cm	1	10/17/2013 4:03:05 PM	R14195

SM4500-H+B: PH

Analyst: JML

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-12A

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 1:58:00 PM

Lab ID: 1310878-011

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM4500-H+B: PH							Analyst: JML
pH	8.20	1.68	H	pH units	1	10/17/2013 4:03:05 PM	R14195

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-12B

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 1:46:00 PM

Lab ID: 1310878-012

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	14	10	*	mg/L	100	10/18/2013 4:42:35 PM	R14218
Chloride	1300	50		mg/L	100	10/18/2013 4:42:35 PM	R14218
Bromide	1.5	1.0		mg/L	10	10/18/2013 4:30:11 PM	R14218
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	10/26/2013 12:25:00 AM	R14381
Sulfate	770	50		mg/L	100	10/18/2013 4:42:35 PM	R14218
Nitrate+Nitrite as N	ND	2.0		mg/L	10	10/18/2013 9:03:11 PM	R14218
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.074	0.0020		mg/L	1	10/29/2013 3:35:09 PM	R14439
Cadmium	ND	0.0020		mg/L	1	10/29/2013 3:35:09 PM	R14439
Chromium	0.0083	0.0060		mg/L	1	10/29/2013 3:35:09 PM	R14439
Copper	ND	0.0060		mg/L	1	10/29/2013 3:35:09 PM	R14439
Iron	0.26	0.020		mg/L	1	10/29/2013 3:35:09 PM	R14439
Lead	ND	0.0050		mg/L	1	11/4/2013 8:09:15 PM	R14569
Manganese	0.20	0.0020	*	mg/L	1	10/31/2013 4:31:42 PM	R14514
Silver	ND	0.0050		mg/L	1	10/29/2013 3:35:09 PM	R14439
Zinc	0.016	0.010		mg/L	1	10/29/2013 3:35:09 PM	R14439
EPA METHOD 200.7: METALS							Analyst: ELS
Barium	0.080	0.0020		mg/L	1	10/29/2013 2:00:12 PM	10019
Cadmium	ND	0.0020		mg/L	1	10/29/2013 2:00:12 PM	10019
Calcium	82	1.0		mg/L	1	10/29/2013 2:00:12 PM	10019
Chromium	0.0076	0.0060		mg/L	1	10/29/2013 2:00:12 PM	10019
Copper	ND	0.0060		mg/L	1	10/29/2013 2:00:12 PM	10019
Iron	0.38	0.020	*	mg/L	1	10/29/2013 2:00:12 PM	10019
Magnesium	31	1.0		mg/L	1	10/29/2013 2:00:12 PM	10019
Manganese	0.20	0.0020	*	mg/L	1	10/31/2013 3:48:15 PM	10019
Potassium	130	50		mg/L	50	11/5/2013 7:14:46 PM	10019
Silver	ND	0.025		mg/L	5	10/29/2013 2:02:11 PM	10019
Sodium	1300	50		mg/L	50	11/5/2013 7:14:46 PM	10019
Zinc	0.023	0.010		mg/L	1	10/29/2013 2:00:12 PM	10019
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.050		mg/L	50	10/29/2013 7:18:16 PM	R14427
Selenium	ND	0.050		mg/L	50	10/29/2013 7:18:16 PM	R14427
Uranium	ND	0.050		mg/L	50	10/29/2013 7:18:16 PM	R14427
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.011	0.010	*	mg/L	10	10/30/2013 3:36:34 PM	10019
Lead	ND	0.010		mg/L	10	10/30/2013 3:36:34 PM	10019
Selenium	0.012	0.010		mg/L	10	10/30/2013 3:36:34 PM	10019

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-12B

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 1:46:00 PM

Lab ID: 1310878-012

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Uranium	ND	0.010		mg/L	10	10/30/2013 3:36:34 PM	10019
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	10/22/2013 5:49:46 PM	9934
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Acenaphthylene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Aniline	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Anthracene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Azobenzene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Benz(a)anthracene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Benzo(a)pyrene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Benzo(b)fluoranthene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Benzo(g,h,i)perylene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Benzo(k)fluoranthene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Benzoic acid	ND	200		µg/L	1	10/27/2013 10:42:30 PM	9923
Benzyl alcohol	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Bis(2-chloroethyl)ether	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
4-Bromophenyl phenyl ether	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Butyl benzyl phthalate	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Carbazole	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
4-Chloro-3-methylphenol	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
4-Chloroaniline	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
2-Chloronaphthalene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
2-Chlorophenol	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Chrysene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Di-n-butyl phthalate	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Di-n-octyl phthalate	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Dibenz(a,h)anthracene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Dibenzofuran	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
1,2-Dichlorobenzene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
1,3-Dichlorobenzene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
1,4-Dichlorobenzene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
3,3'-Dichlorobenzidine	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Diethyl phthalate	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-12B

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 1:46:00 PM

Lab ID: 1310878-012

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dimethyl phthalate	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
2,4-Dichlorophenol	ND	100		µg/L	1	10/27/2013 10:42:30 PM	9923
2,4-Dimethylphenol	68	50		µg/L	1	10/27/2013 10:42:30 PM	9923
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	10/27/2013 10:42:30 PM	9923
2,4-Dinitrophenol	ND	100		µg/L	1	10/27/2013 10:42:30 PM	9923
2,4-Dinitrotoluene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
2,6-Dinitrotoluene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Fluoranthene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Fluorene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Hexachlorobenzene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Hexachlorobutadiene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Hexachlorocyclopentadiene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Hexachloroethane	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Isophorone	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
1-Methylnaphthalene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
2-Methylnaphthalene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
2-Methylphenol	340	50		µg/L	1	10/27/2013 10:42:30 PM	9923
3+4-Methylphenol	730	50		µg/L	1	10/27/2013 10:42:30 PM	9923
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
N-Nitrosodimethylamine	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
N-Nitrosodiphenylamine	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Naphthalene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
2-Nitroaniline	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
3-Nitroaniline	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
4-Nitroaniline	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Nitrobenzene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
2-Nitrophenol	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
4-Nitrophenol	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Pentachlorophenol	ND	100		µg/L	1	10/27/2013 10:42:30 PM	9923
Phenanthrene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Phenol	1500	250		µg/L	5	10/25/2013 6:10:44 PM	9923
Pyrene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Pyridine	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
1,2,4-Trichlorobenzene	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
2,4,5-Trichlorophenol	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
2,4,6-Trichlorophenol	ND	50		µg/L	1	10/27/2013 10:42:30 PM	9923
Surr: 2,4,6-Tribromophenol	81.1	23.3-111		%REC	1	10/27/2013 10:42:30 PM	9923
Surr: 2-Fluorobiphenyl	93.9	38.3-110		%REC	1	10/27/2013 10:42:30 PM	9923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2 for VOA and TOC only.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-12B

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 1:46:00 PM

Lab ID: 1310878-012

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Surr: 2-Fluorophenol	73.7	22.7-98		%REC	1	10/27/2013 10:42:30 PM	9923
Surr: 4-Terphenyl-d14	90.3	52.1-116		%REC	1	10/27/2013 10:42:30 PM	9923
Surr: Nitrobenzene-d5	92.0	36.8-111		%REC	1	10/27/2013 10:42:30 PM	9923
Surr: Phenol-d5	53.6	23.4-74.9		%REC	1	10/27/2013 10:42:30 PM	9923
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Benzene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
Toluene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
Ethylbenzene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
1,2,4-Trimethylbenzene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
1,3,5-Trimethylbenzene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
Naphthalene	ND	20		µg/L	10	10/19/2013 12:38:22 AM	R14207
1-Methylnaphthalene	ND	40		µg/L	10	10/19/2013 12:38:22 AM	R14207
2-Methylnaphthalene	ND	40		µg/L	10	10/19/2013 12:38:22 AM	R14207
Acetone	280	100		µg/L	10	10/19/2013 12:38:22 AM	R14207
Bromobenzene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
Bromodichloromethane	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
Bromoform	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
Bromomethane	ND	30		µg/L	10	10/19/2013 12:38:22 AM	R14207
2-Butanone	ND	100		µg/L	10	10/19/2013 12:38:22 AM	R14207
Carbon disulfide	ND	100		µg/L	10	10/19/2013 12:38:22 AM	R14207
Carbon Tetrachloride	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
Chlorobenzene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
Chloroethane	ND	20		µg/L	10	10/19/2013 12:38:22 AM	R14207
Chloroform	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
Chloromethane	ND	30		µg/L	10	10/19/2013 12:38:22 AM	R14207
2-Chlorotoluene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
4-Chlorotoluene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
cis-1,2-DCE	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
cis-1,3-Dichloropropene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	10/19/2013 12:38:22 AM	R14207
Dibromochloromethane	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
Dibromomethane	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
1,2-Dichlorobenzene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
1,3-Dichlorobenzene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
1,4-Dichlorobenzene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
Dichlorodifluoromethane	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-12B

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 1:46:00 PM

Lab ID: 1310878-012

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloroethane	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
1,1-Dichloroethene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
1,2-Dichloropropane	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
1,3-Dichloropropane	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
2,2-Dichloropropane	ND	20		µg/L	10	10/19/2013 12:38:22 AM	R14207
1,1-Dichloropropene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
Hexachlorobutadiene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
2-Hexanone	ND	100		µg/L	10	10/19/2013 12:38:22 AM	R14207
Isopropylbenzene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
4-Isopropyltoluene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
4-Methyl-2-pentanone	ND	100		µg/L	10	10/19/2013 12:38:22 AM	R14207
Methylene Chloride	ND	30		µg/L	10	10/19/2013 12:38:22 AM	R14207
n-Butylbenzene	ND	30		µg/L	10	10/19/2013 12:38:22 AM	R14207
n-Propylbenzene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
sec-Butylbenzene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
Styrene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
tert-Butylbenzene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	10/19/2013 12:38:22 AM	R14207
Tetrachloroethene (PCE)	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
trans-1,2-DCE	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
trans-1,3-Dichloropropene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
1,2,3-Trichlorobenzene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
1,2,4-Trichlorobenzene	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
1,1,1-Trichloroethane	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
1,1,2-Trichloroethane	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
Trichloroethene (TCE)	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
Trichlorofluoromethane	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
1,2,3-Trichloropropane	ND	20		µg/L	10	10/19/2013 12:38:22 AM	R14207
Vinyl chloride	ND	10		µg/L	10	10/19/2013 12:38:22 AM	R14207
Xylenes, Total	ND	15		µg/L	10	10/19/2013 12:38:22 AM	R14207
Surr: 1,2-Dichloroethane-d4	96.8	70-130		%REC	10	10/19/2013 12:38:22 AM	R14207
Surr: 4-Bromofluorobenzene	101	70-130		%REC	10	10/19/2013 12:38:22 AM	R14207
Surr: Dibromofluoromethane	98.3	70-130		%REC	10	10/19/2013 12:38:22 AM	R14207
Surr: Toluene-d8	104	70-130		%REC	10	10/19/2013 12:38:22 AM	R14207

SM2510B: SPECIFIC CONDUCTANCE

Analyst: **JML**

Conductivity	6800	0.010		µmhos/cm	1	10/17/2013 4:07:09 PM	R14195

SM4500-H+B: PH

Analyst: **JML**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: EP-12B

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 1:46:00 PM

Lab ID: 1310878-012

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM4500-H+B: PH						Analyst: JML	
pH	8.43	1.68	H	pH units	1	10/17/2013 4:07:09 PM	R14195

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: BW to EP-2

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 11:47:00 AM

Lab ID: 1310878-013

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.55	0.10		mg/L	1	10/18/2013 5:19:48 PM	R14218
Chloride	64	10		mg/L	20	10/18/2013 5:57:02 PM	R14218
Bromide	0.24	0.10		mg/L	1	10/18/2013 5:19:48 PM	R14218
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	10/18/2013 5:57:02 PM	R14218
Sulfate	1900	25		mg/L	50	10/26/2013 12:37:24 AM	R14381
Nitrate+Nitrite as N	ND	1.0		mg/L	5	10/18/2013 9:15:36 PM	R14218
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Calcium	4.3	1.0		mg/L	1	10/25/2013 4:44:59 PM	9965
Magnesium	2.0	1.0		mg/L	1	10/24/2013 4:37:38 PM	9965
Potassium	11	1.0		mg/L	1	10/24/2013 4:37:38 PM	9965
Sodium	1300	50		mg/L	50	10/24/2013 5:03:18 PM	9965

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: FIELD BLANK

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 10:00:00 AM

Lab ID: 1310878-014

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Toluene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Ethylbenzene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Naphthalene	ND	2.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1-Methylnaphthalene	ND	4.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
2-Methylnaphthalene	ND	4.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Acetone	ND	10		µg/L	1	10/19/2013 1:06:57 AM	R14207
Bromobenzene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Bromodichloromethane	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Bromoform	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Bromomethane	ND	3.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
2-Butanone	ND	10		µg/L	1	10/19/2013 1:06:57 AM	R14207
Carbon disulfide	ND	10		µg/L	1	10/19/2013 1:06:57 AM	R14207
Carbon Tetrachloride	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Chlorobenzene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Chloroethane	ND	2.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Chloroform	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Chloromethane	ND	3.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
2-Chlorotoluene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
4-Chlorotoluene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
cis-1,2-DCE	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Dibromochloromethane	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Dibromomethane	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1,1-Dichloroethane	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1,1-Dichloroethene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1,2-Dichloropropane	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1,3-Dichloropropane	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
2,2-Dichloropropane	ND	2.0		µg/L	1	10/19/2013 1:06:57 AM	R14207

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: FIELD BLANK

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/15/2013 10:00:00 AM

Lab ID: 1310878-014

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloropropene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Hexachlorobutadiene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
2-Hexanone	ND	10		µg/L	1	10/19/2013 1:06:57 AM	R14207
Isopropylbenzene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
4-Isopropyltoluene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
4-Methyl-2-pentanone	ND	10		µg/L	1	10/19/2013 1:06:57 AM	R14207
Methylene Chloride	ND	3.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
n-Butylbenzene	ND	3.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
n-Propylbenzene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
sec-Butylbenzene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Styrene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
tert-Butylbenzene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
trans-1,2-DCE	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Trichlorofluoromethane	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Vinyl chloride	ND	1.0		µg/L	1	10/19/2013 1:06:57 AM	R14207
Xylenes, Total	ND	1.5		µg/L	1	10/19/2013 1:06:57 AM	R14207
Surr: 1,2-Dichloroethane-d4	99.0	70-130		%REC	1	10/19/2013 1:06:57 AM	R14207
Surr: 4-Bromofluorobenzene	98.5	70-130		%REC	1	10/19/2013 1:06:57 AM	R14207
Surr: Dibromofluoromethane	105	70-130		%REC	1	10/19/2013 1:06:57 AM	R14207
Surr: Toluene-d8	99.4	70-130		%REC	1	10/19/2013 1:06:57 AM	R14207

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: TRIP BLANK

Project: 2013 SEMI ANNUAL PONDS

Collection Date:

Lab ID: 1310878-015

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Toluene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Ethylbenzene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Naphthalene	ND	2.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1-Methylnaphthalene	ND	4.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
2-Methylnaphthalene	ND	4.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Acetone	ND	10		µg/L	1	10/19/2013 1:35:30 AM	R14207
Bromobenzene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Bromodichloromethane	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Bromoform	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Bromomethane	ND	3.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
2-Butanone	ND	10		µg/L	1	10/19/2013 1:35:30 AM	R14207
Carbon disulfide	ND	10		µg/L	1	10/19/2013 1:35:30 AM	R14207
Carbon Tetrachloride	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Chlorobenzene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Chloroethane	ND	2.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Chloroform	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Chloromethane	ND	3.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
2-Chlorotoluene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
4-Chlorotoluene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
cis-1,2-DCE	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Dibromochloromethane	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Dibromomethane	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1,1-Dichloroethane	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1,1-Dichloroethene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1,2-Dichloropropane	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1,3-Dichloropropane	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
2,2-Dichloropropane	ND	2.0		µg/L	1	10/19/2013 1:35:30 AM	R14207

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310878

Date Reported: 11/14/2013

CLIENT: Western Refining Company

Client Sample ID: TRIP BLANK

Project: 2013 SEMI ANNUAL PONDS

Collection Date:

Lab ID: 1310878-015

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloropropene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Hexachlorobutadiene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
2-Hexanone	ND	10		µg/L	1	10/19/2013 1:35:30 AM	R14207
Isopropylbenzene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
4-Isopropyltoluene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
4-Methyl-2-pentanone	ND	10		µg/L	1	10/19/2013 1:35:30 AM	R14207
Methylene Chloride	ND	3.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
n-Butylbenzene	ND	3.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
n-Propylbenzene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
sec-Butylbenzene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Styrene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
tert-Butylbenzene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
trans-1,2-DCE	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Trichlorofluoromethane	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Vinyl chloride	ND	1.0		µg/L	1	10/19/2013 1:35:30 AM	R14207
Xylenes, Total	ND	1.5		µg/L	1	10/19/2013 1:35:30 AM	R14207
Surr: 1,2-Dichloroethane-d4	96.7	70-130		%REC	1	10/19/2013 1:35:30 AM	R14207
Surr: 4-Bromofluorobenzene	96.2	70-130		%REC	1	10/19/2013 1:35:30 AM	R14207
Surr: Dibromofluoromethane	101	70-130		%REC	1	10/19/2013 1:35:30 AM	R14207
Surr: Toluene-d8	102	70-130		%REC	1	10/19/2013 1:35:30 AM	R14207

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID ICV	SampType: ICV			TestCode: EPA Method 200.7: Metals						
Client ID: ICV	Batch ID: R14439			RunNo: 14439						
Prep Date:	Analysis Date: 10/29/2013			SeqNo: 414831			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.4	95	105			
Cadmium	0.49	0.0020	0.5000	0	98.2	95	105			
Chromium	0.51	0.0060	0.5000	0	101	95	105			
Copper	0.49	0.0060	0.5000	0	98.2	95	105			
Iron	0.50	0.020	0.5000	0	100	95	105			
Lead	0.49	0.0050	0.5000	0	98.5	95	105			
Silver	0.50	0.0050	0.5000	0	100	95	105			
Zinc	0.50	0.010	0.5000	0	100	95	105			

Sample ID ICB	SampType: ICB			TestCode: EPA Method 200.7: Metals						
Client ID: ICB	Batch ID: R14439			RunNo: 14439						
Prep Date:	Analysis Date: 10/29/2013			SeqNo: 414833			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	0	-100	99			
Cadmium	ND	0.0020	0.002000	0	-9.00	-100	99			
Chromium	ND	0.0060	0.006000	0	-5.00	-100	99			
Copper	ND	0.0060	0.006000	0	-3.83	-100	99			
Iron	ND	0.020	0.02000	0	14.1	-100	99			
Lead	ND	0.0050	0.005000	0	77.0	-100	99			
Silver	ND	0.0050	0.005000	0	-19.8	-100	99			
Zinc	ND	0.010	0.01000	0	4.30	-100	99			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 200.7: Metals						
Client ID: PBW	Batch ID: R14439			RunNo: 14439						
Prep Date:	Analysis Date: 10/29/2013			SeqNo: 414837			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								
Lead	ND	0.0050								
Silver	ND	0.0050								
Zinc	ND	0.010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Metals					
Client ID:	LCSW		Batch ID: R14439		RunNo: 14439					
Prep Date:			Analysis Date: 10/29/2013		SeqNo: 414838		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0	94.5	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.0	85	115			
Chromium	0.50	0.0060	0.5000	0	99.3	85	115			
Copper	0.48	0.0060	0.5000	0	96.6	85	115			
Iron	0.50	0.020	0.5000	0	99.9	85	115			
Lead	0.48	0.0050	0.5000	0	95.5	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.49	0.010	0.5000	0	97.2	85	115			

Sample ID	MB-10019		SampType: MBLK		TestCode: EPA Method 200.7: Metals					
Client ID:	PBW		Batch ID: 10019		RunNo: 14439					
Prep Date:	10/25/2013		Analysis Date: 10/29/2013		SeqNo: 414843		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS-10019		SampType: LCS		TestCode: EPA Method 200.7: Metals					
Client ID:	LCSW		Batch ID: 10019		RunNo: 14439					
Prep Date:	10/25/2013		Analysis Date: 10/29/2013		SeqNo: 414844		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.0	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.2	85	115			
Calcium	50	1.0	50.00	0	99.2	85	115			
Chromium	0.51	0.0060	0.5000	0	101	85	115			
Copper	0.49	0.0060	0.5000	0	97.6	85	115			
Iron	0.52	0.020	0.5000	0	103	85	115			
Magnesium	51	1.0	50.00	0	103	85	115			
Potassium	50	1.0	50.00	0	99.7	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	LCS-10019		SampType: LCS		TestCode: EPA Method 200.7: Metals					
Client ID:	LCSW		Batch ID: 10019		RunNo: 14439					
Prep Date:	10/25/2013		Analysis Date: 10/29/2013		SeqNo: 414844		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	51	1.0	50.00	0	101	85	115			
Zinc	0.49	0.010	0.5000	0	97.1	85	115			

Sample ID	1310878-009DMS		SampType: MS		TestCode: EPA Method 200.7: Metals					
Client ID:	EP-9		Batch ID: 10019		RunNo: 14439					
Prep Date:	10/25/2013		Analysis Date: 10/29/2013		SeqNo: 414908		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.64	0.010	0.5000	0.1784	91.7	70	130			
Cadmium	0.51	0.010	0.5000	0	101	70	130			
Chromium	0.47	0.030	0.5000	0.02085	90.8	70	130			
Copper	0.52	0.030	0.5000	0	104	70	130			
Iron	0.58	0.10	0.5000	0.1018	94.8	70	130			
Zinc	0.44	0.050	0.5000	0.01345	84.7	70	130			

Sample ID	1310878-009DMSD		SampType: MSD		TestCode: EPA Method 200.7: Metals					
Client ID:	EP-9		Batch ID: 10019		RunNo: 14439					
Prep Date:	10/25/2013		Analysis Date: 10/29/2013		SeqNo: 414909		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.010	0.5000	0.1784	94.1	70	130	1.87	20	
Cadmium	0.51	0.010	0.5000	0	103	70	130	1.70	20	
Chromium	0.47	0.030	0.5000	0.02085	89.9	70	130	0.963	20	
Copper	0.49	0.030	0.5000	0	99.0	70	130	5.26	20	
Iron	0.58	0.10	0.5000	0.1018	96.5	70	130	1.47	20	
Zinc	0.44	0.050	0.5000	0.01345	86.3	70	130	1.77	20	

Sample ID	ICV	SampType: ICV			TestCode: EPA Method 200.7: Metals					
Client ID:	ICV	Batch ID: R14514			RunNo: 14514					
Prep Date:		Analysis Date: 10/31/2013			SeqNo: 416829		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	0.50	0.0020	0.5000	0	100	95	105			
Silver	0.49	0.0050	0.5000	0	98.2	95	105			

Sample ID	ICB		SampType: ICB		TestCode: EPA Method 200.7: Metals					
Client ID:	ICB		Batch ID: R14514		RunNo: 14514					
Prep Date:			Analysis Date: 10/31/2013		SeqNo: 416831		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID ICB	SampType: ICB			TestCode: EPA Method 200.7: Metals						
Client ID: ICB	Batch ID: R14514			RunNo: 14514						
Prep Date:	Analysis Date: 10/31/2013			SeqNo: 416831		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	ND	0.0020	0.002000	0	2.00	-100	99			
Silver	ND	0.0050	0.005000	0	-11.6	-100	99			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 200.7: Metals						
Client ID: PBW	Batch ID: R14514			RunNo: 14514						
Prep Date:	Analysis Date: 10/31/2013			SeqNo: 416835		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 200.7: Metals						
Client ID: LCSW	Batch ID: R14514			RunNo: 14514						
Prep Date:	Analysis Date: 10/31/2013			SeqNo: 416836		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	0.47	0.0020	0.5000	0	94.6	85	115			
Silver	0.099	0.0050	0.1000	0	99.2	85	115			

Sample ID MB-10019	SampType: MBLK			TestCode: EPA Method 200.7: Metals						
Client ID: PBW	Batch ID: 10019			RunNo: 14514						
Prep Date: 10/25/2013	Analysis Date: 10/31/2013			SeqNo: 417132		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	ND	0.0020								

Sample ID LCS-10019	SampType: LCS			TestCode: EPA Method 200.7: Metals						
Client ID: LCSW	Batch ID: 10019			RunNo: 14514						
Prep Date: 10/25/2013	Analysis Date: 10/31/2013			SeqNo: 417133		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	0.49	0.0020	0.5000	0	98.5	85	115			

Sample ID ICV	SampType: ICV			TestCode: EPA Method 200.7: Metals						
Client ID: ICV	Batch ID: R14586			RunNo: 14586						
Prep Date:	Analysis Date: 11/5/2013			SeqNo: 419137		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.6	95	105			
Cadmium	0.50	0.0020	0.5000	0	100	95	105			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID ICV	SampType: ICV			TestCode: EPA Method 200.7: Metals						
Client ID: ICV	Batch ID: R14586			RunNo: 14586						
Prep Date:	Analysis Date: 11/5/2013			SeqNo: 419137		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.51	0.0060	0.5000	0	102	95	105			
Copper	0.50	0.0060	0.5000	0	101	95	105			
Lead	0.48	0.0050	0.5000	0	95.9	95	105			
Zinc	0.50	0.010	0.5000	0	100	95	105			

Sample ID ICB	SampType: ICB			TestCode: EPA Method 200.7: Metals						
Client ID: ICB	Batch ID: R14586			RunNo: 14586						
Prep Date:	Analysis Date: 11/5/2013			SeqNo: 419139		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	3.50	-100	99			
Cadmium	ND	0.0020	0.002000	0	8.00	-100	99			
Chromium	ND	0.0060	0.006000	0	-10.2	-100	99			
Copper	ND	0.0060	0.006000	0	10.8	-100	99			
Lead	ND	0.0050	0.005000	0	14.8	-100	99			
Zinc	ND	0.010	0.01000	0	1.50	-100	99			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 200.7: Metals						
Client ID: PBW	Batch ID: R14586			RunNo: 14586						
Prep Date:	Analysis Date: 11/5/2013			SeqNo: 419143		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								
Lead	ND	0.0050								
Zinc	ND	0.010								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 200.7: Metals						
Client ID: LCSW	Batch ID: R14586			RunNo: 14586						
Prep Date:	Analysis Date: 11/5/2013			SeqNo: 419144		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	0.51	0.0020	0.5000	0	101	85	115			
Chromium	0.51	0.0060	0.5000	0	103	85	115			
Copper	0.49	0.0060	0.5000	0	97.6	85	115			
Lead	0.49	0.0050	0.5000	0	98.6	85	115			
Zinc	0.52	0.010	0.5000	0	105	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID ICV	SampType: ICV			TestCode: EPA Method 200.7: Metals						
Client ID: ICV	Batch ID: R14758			RunNo: 14758						
Prep Date:	Analysis Date: 11/12/2013			SeqNo: 424791		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.49	0.0050	0.5000	0	97.6	95	105			

Sample ID ICB	SampType: ICB			TestCode: EPA Method 200.7: Metals						
Client ID: ICB	Batch ID: R14758			RunNo: 14758						
Prep Date:	Analysis Date: 11/12/2013			SeqNo: 424793		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050	0.005000	0	5.40	-100	99			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 200.7: Metals						
Client ID: PBW	Batch ID: R14758			RunNo: 14758						
Prep Date:	Analysis Date: 11/12/2013			SeqNo: 424801		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 200.7: Metals						
Client ID: LCSW	Batch ID: R14758			RunNo: 14758						
Prep Date:	Analysis Date: 11/12/2013			SeqNo: 424803		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	101	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID MB	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PBW	Batch ID: R14439		RunNo: 14439							
Prep Date:	Analysis Date: 10/29/2013		SeqNo: 414839		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								
Lead	ND	0.0050								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: LCSW	Batch ID: R14439		RunNo: 14439							
Prep Date:	Analysis Date: 10/29/2013		SeqNo: 414840		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.8	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.3	85	115			
Chromium	0.50	0.0060	0.5000	0	99.4	85	115			
Copper	0.49	0.0060	0.5000	0	97.7	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Lead	0.48	0.0050	0.5000	0	95.8	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			
Zinc	0.49	0.010	0.5000	0	98.3	85	115			

Sample ID MB	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PBW	Batch ID: R14514		RunNo: 14514							
Prep Date:	Analysis Date: 10/31/2013		SeqNo: 416837		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: LCSW	Batch ID: R14514		RunNo: 14514							
Prep Date:	Analysis Date: 10/31/2013		SeqNo: 416838		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	0.50	0.0020	0.5000	0	99.1	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID ICV	SampType: ICV			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: ICV	Batch ID: R14569			RunNo: 14569						
Prep Date:	Analysis Date: 11/4/2013			SeqNo: 418389			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.0	95	105			
Cadmium	0.48	0.0020	0.5000	0	96.8	95	105			
Chromium	0.49	0.0060	0.5000	0	97.2	95	105			
Copper	0.50	0.0060	0.5000	0	99.2	95	105			
Iron	0.49	0.020	0.5000	0	98.2	95	105			
Lead	0.49	0.0050	0.5000	0	98.3	95	105			
Manganese	0.49	0.0020	0.5000	0	97.8	95	105			
Silver	0.51	0.0050	0.5000	0	102	95	105			
Zinc	0.49	0.010	0.5000	0	97.2	95	105			

Sample ID ICB	SampType: ICB			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: ICB	Batch ID: R14569			RunNo: 14569						
Prep Date:	Analysis Date: 11/4/2013			SeqNo: 418390			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	-3.50	-100	99			
Cadmium	ND	0.0020	0.002000	0	7.50	-100	99			
Chromium	ND	0.0060	0.006000	0	-6.83	-100	99			
Copper	ND	0.0060	0.006000	0	4.17	-100	99			
Iron	ND	0.020	0.02000	0	-2.65	-100	99			
Lead	ND	0.0050	0.005000	0	4.00	-100	99			
Manganese	ND	0.0020	0.002000	0	0	-100	99			
Silver	ND	0.0050	0.005000	0	8.40	-100	99			
Zinc	ND	0.010	0.01000	0	0.800	-100	99			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: PBW	Batch ID: R14569			RunNo: 14569						
Prep Date:	Analysis Date: 11/4/2013			SeqNo: 418395			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								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID LCS	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: LCSW	Batch ID: R14569			RunNo: 14569						
Prep Date:	Analysis Date: 11/4/2013			SeqNo: 418396		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.4	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.48	0.0060	0.5000	0	97.0	85	115			
Copper	0.51	0.0060	0.5000	0	101	85	115			
Iron	0.49	0.020	0.5000	0	97.8	85	115			
Lead	0.49	0.0050	0.5000	0	98.6	85	115			
Manganese	0.48	0.0020	0.5000	0	96.2	85	115			
Silver	0.11	0.0050	0.1000	0	108	85	115			
Zinc	0.48	0.010	0.5000	0	96.7	85	115			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: PBW	Batch ID: R14586			RunNo: 14586						
Prep Date:	Analysis Date: 11/5/2013			SeqNo: 419170		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								
Lead	ND	0.0050								
Zinc	ND	0.010								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: LCSW	Batch ID: R14586			RunNo: 14586						
Prep Date:	Analysis Date: 11/5/2013			SeqNo: 419171		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	0.51	0.0020	0.5000	0	101	85	115			
Chromium	0.51	0.0060	0.5000	0	103	85	115			
Copper	0.49	0.0060	0.5000	0	97.6	85	115			
Lead	0.49	0.0050	0.5000	0	98.6	85	115			
Zinc	0.52	0.010	0.5000	0	105	85	115			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: PBW	Batch ID: R14758			RunNo: 14758						
Prep Date:	Analysis Date: 11/12/2013			SeqNo: 424805		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R14758		RunNo: 14758					
Prep Date:			Analysis Date: 11/12/2013		SeqNo: 424806		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.098	0.0050	0.1000	0	98.4	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	MB-9965	SampType: MBLK		TestCode: EPA Method 200.7: Total Metals						
Client ID:	PBW	Batch ID: 9965		RunNo: 14287						
Prep Date:	10/23/2013	Analysis Date: 10/23/2013		SeqNo: 409938		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID	LCS-9965		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 9965		RunNo: 14287					
Prep Date:	10/23/2013		Analysis Date: 10/23/2013		SeqNo: 409939		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	48	1.0	50.00	0	96.1	85	115			
Magnesium	49	1.0	50.00	0	97.9	85	115			
Potassium	47	1.0	50.00	0	94.9	85	115			
Sodium	48	1.0	50.00	0	95.1	85	115			

Sample ID	1310878-013BMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BW to EP-2		Batch ID: 9965		RunNo: 14333					
Prep Date:	10/23/2013		Analysis Date: 10/24/2013		SeqNo: 411577		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	54	1.0	50.00	2.016	103	70	130			
Potassium	62	1.0	50.00	11.00	103	70	130			

Sample ID	1310878-013BMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BW to EP-2		Batch ID: 9965		RunNo: 14333					
Prep Date:	10/23/2013		Analysis Date: 10/24/2013		SeqNo: 411578		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	54	1.0	50.00	2.016	103	70	130	0.227	20	
Potassium	63	1.0	50.00	11.00	103	70	130	0.227	20	

Sample ID	1310878-013BMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BW to EP-2		Batch ID: 9965		RunNo: 14364					
Prep Date:	10/23/2013		Analysis Date: 10/25/2013		SeqNo: 412295		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	56	1.0	50.00	4.254	104	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	1310878-013BMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BW to EP-2		Batch ID: 9965		RunNo: 14364					
Prep Date:	10/23/2013		Analysis Date: 10/25/2013		SeqNo: 412296		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	56	1.0	50.00	4.254	103	70	130	0.180	20	

Sample ID	MB-10019	SampType: MBLK			TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID: 10019			RunNo: 14439					
Prep Date:	10/25/2013	Analysis Date: 10/29/2013			SeqNo: 416469		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS-10019		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 10019		RunNo: 14439					
Prep Date:	10/25/2013		Analysis Date: 10/29/2013		SeqNo: 416470		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.0	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.2	85	115			
Calcium	50	1.0	50.00	0	99.2	85	115			
Chromium	0.51	0.0060	0.5000	0	101	85	115			
Copper	0.49	0.0060	0.5000	0	97.6	85	115			
Iron	0.52	0.020	0.5000	0	103	85	115			
Magnesium	51	1.0	50.00	0	103	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	101	85	115			
Zinc	0.49	0.010	0.5000	0	97.1	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	MB-10019		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 10019		RunNo: 14514					
Prep Date:	10/25/2013		Analysis Date: 10/31/2013		SeqNo: 416843		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	ND	0.0020								

Sample ID	LCS-10019		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 10019		RunNo: 14514					
Prep Date:	10/25/2013		Analysis Date: 10/31/2013		SeqNo: 416844		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	0.49	0.0020	0.5000	0	98.5	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R14427		RunNo: 14427					
Prep Date:			Analysis Date: 10/29/2013		SeqNo: 414543		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	103	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.026	0.0010	0.02500	0	105	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R14427		RunNo: 14427					
Prep Date:			Analysis Date: 10/29/2013		SeqNo: 414544		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Selenium	0.024	0.0010	0.02500	0	96.4	85	115			
Uranium	0.025	0.0010	0.02500	0	101	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R14427		RunNo: 14427					
Prep Date:			Analysis Date: 10/29/2013		SeqNo: 414545		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	101	85	115			
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R14427		RunNo: 14427					
Prep Date:			Analysis Date: 10/29/2013		SeqNo: 414546		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: R14427		RunNo: 14427					
Prep Date:			Analysis Date: 10/29/2013		SeqNo: 414547		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R14427	RunNo:	14427					
Prep Date:		Analysis Date:	10/29/2013	SeqNo:	414548	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	MB-10019		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 10019		RunNo: 14385					
Prep Date:	10/25/2013		Analysis Date: 10/28/2013		SeqNo: 413591		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB-10019	SampType: MBLK			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID: 10019			RunNo: 14516					
Prep Date:	10/25/2013	Analysis Date: 11/1/2013			SeqNo: 417053		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	MB-9934	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	9934	RunNo:	14288					
Prep Date:	10/21/2013	Analysis Date:	10/22/2013	SeqNo:	410007	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-9934	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	9934	RunNo:	14288					
Prep Date:	10/21/2013	Analysis Date:	10/22/2013	SeqNo:	410008	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	95.4	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID A5	SampType: CCV_5			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14218			RunNo: 14218						
Prep Date:	Analysis Date: 10/18/2013			SeqNo: 407380		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.10	1.600	0	91.6	90	110			
Chloride	7.6	0.50	8.000	0	95.4	90	110			
Bromide	7.7	0.10	8.000	0	96.6	90	110			
Phosphorus, Orthophosphate (As P	7.4	0.50	8.000	0	92.4	90	110			
Sulfate	19	0.50	20.00	0	96.5	90	110			
Nitrate+Nitrite as N	7.9	0.20	8.000	0	98.3	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R14218			RunNo: 14218						
Prep Date:	Analysis Date: 10/18/2013			SeqNo: 407382		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R14218			RunNo: 14218						
Prep Date:	Analysis Date: 10/18/2013			SeqNo: 407383		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.45	0.10	0.5000	0	90.3	90	110			
Chloride	4.6	0.50	5.000	0	92.1	90	110			
Bromide	2.4	0.10	2.500	0	94.8	90	110			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	91.5	90	110			
Sulfate	9.3	0.50	10.00	0	92.7	90	110			
Nitrate+Nitrite as N	3.3	0.20	3.500	0	94.0	90	110			

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14218			RunNo: 14218						
Prep Date:	Analysis Date: 10/18/2013			SeqNo: 407392		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.4	0.10	2.400	0	101	90	110			
Chloride	12	0.50	12.00	0	99.5	90	110			
Bromide	12	0.10	12.00	0	97.8	90	110			
Phosphorus, Orthophosphate (As P	12	0.50	12.00	0	97.5	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14218			RunNo: 14218						
Prep Date:	Analysis Date: 10/18/2013			SeqNo: 407392		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	30	0.50	30.00	0	99.5	90	110			
Nitrate+Nitrite as N	12	0.20	12.00	0	101	90	110			

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14218			RunNo: 14218						
Prep Date:	Analysis Date: 10/18/2013			SeqNo: 407404		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.99	0.10	1.000	0	98.7	90	110			
Chloride	4.7	0.50	5.000	0	93.6	90	110			
Bromide	4.7	0.10	5.000	0	94.3	90	110			
Phosphorus, Orthophosphate (As P)	4.5	0.50	5.000	0	89.8	90	110			S
Sulfate	11	0.50	12.50	0	91.8	90	110			
Nitrate+Nitrite as N	4.7	0.20	5.000	0	93.5	90	110			

Sample ID A5	SampType: CCV_5			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14218			RunNo: 14218						
Prep Date:	Analysis Date: 10/18/2013			SeqNo: 407416		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.10	1.600	0	101	90	110			
Chloride	7.7	0.50	8.000	0	96.0	90	110			
Bromide	7.5	0.10	8.000	0	94.3	90	110			
Phosphorus, Orthophosphate (As P)	7.4	0.50	8.000	0	92.9	90	110			
Sulfate	19	0.50	20.00	0	94.4	90	110			
Nitrate+Nitrite as N	7.7	0.20	8.000	0	95.7	90	110			

Sample ID 1310878-013AMS	SampType: MS			TestCode: EPA Method 300.0: Anions						
Client ID: BW to EP-2	Batch ID: R14218			RunNo: 14218						
Prep Date:	Analysis Date: 10/18/2013			SeqNo: 407419		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.94	0.10	0.5000	0.5513	77.3	76.9	114			
Bromide	2.3	0.10	2.500	0.2399	84.3	92	104			S

Sample ID 1310878-013AMSD	SampType: MSD			TestCode: EPA Method 300.0: Anions						
Client ID: BW to EP-2	Batch ID: R14218			RunNo: 14218						
Prep Date:	Analysis Date: 10/18/2013			SeqNo: 407420		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	1310878-013AMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions					
Client ID:	BW to EP-2		Batch ID: R14218		RunNo: 14218					
Prep Date:			Analysis Date: 10/18/2013		SeqNo: 407420		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.97	0.10	0.5000	0.5513	84.1	76.9	114	3.58	20	
Bromide	2.4	0.10	2.500	0.2399	84.5	92	104	0.204	20	S

Sample ID	A6		SampType: CCV_6		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R14218		RunNo: 14218					
Prep Date:			Analysis Date: 10/18/2013		SeqNo: 407428		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.5	0.10	2.400	0	106	90	110			
Chloride	12	0.50	12.00	0	101	90	110			
Bromide	12	0.10	12.00	0	97.2	90	110			
Phosphorus, Orthophosphate (As P	12	0.50	12.00	0	97.8	90	110			
Sulfate	30	0.50	30.00	0	99.2	90	110			
Nitrate+Nitrite as N	12	0.20	12.00	0	101	90	110			

Sample ID	A4		SampType: CCV_4		TestCode: EPA Method 300.0: Anions					
Client ID:	BatchQC		Batch ID: R14218		RunNo: 14218					
Prep Date:			Analysis Date: 10/18/2013		SeqNo: 407440		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.0	0.10	1.000	0	100	90	110			
Chloride	4.7	0.50	5.000	0	93.2	90	110			
Bromide	4.6	0.10	5.000	0	91.0	90	110			
Phosphorus, Orthophosphate (As P	4.4	0.50	5.000	0	87.4	90	110			S
Sulfate	11	0.50	12.50	0	90.2	90	110			
Nitrate+Nitrite as N	4.5	0.20	5.000	0	90.8	90	110			

Sample ID	A5		SampType: CCV_5			TestCode: EPA Method 300.0: Anions				
Client ID:	BatchQC		Batch ID: R14218			RunNo: 14218				
Prep Date:	Analysis Date: 10/19/2013			SeqNo: 407452		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.10	1.600	0	102	90	110			
Chloride	7.5	0.50	8.000	0	94.1	90	110			
Bromide	7.6	0.10	8.000	0	94.8	90	110			
Phosphorus, Orthophosphate (As P	7.5	0.50	8.000	0	93.2	90	110			
Sulfate	19	0.50	20.00	0	94.3	90	110			
Nitrate+Nitrite as N	7.7	0.20	8.000	0	96.3	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R14218		RunNo: 14218							
Prep Date:	Analysis Date: 10/19/2013		SeqNo: 407454		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R14218		RunNo: 14218							
Prep Date:	Analysis Date: 10/19/2013		SeqNo: 407455		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	105	90	110			
Chloride	4.6	0.50	5.000	0	92.9	90	110			
Bromide	2.3	0.10	2.500	0	92.6	90	110			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	92.8	90	110			
Sulfate	9.3	0.50	10.00	0	92.8	90	110			
Nitrate+Nitrite as N	3.3	0.20	3.500	0	93.8	90	110			

Sample ID A6	SampType: CCV_6		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R14218		RunNo: 14218							
Prep Date:	Analysis Date: 10/19/2013		SeqNo: 407464		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.5	0.10	2.400	0	106	90	110			
Chloride	12	0.50	12.00	0	99.3	90	110			
Bromide	12	0.10	12.00	0	97.6	90	110			
Phosphorus, Orthophosphate (As P	12	0.50	12.00	0	98.2	90	110			
Sulfate	30	0.50	30.00	0	99.1	90	110			
Nitrate+Nitrite as N	12	0.20	12.00	0	101	90	110			

Sample ID A5	SampType: CCV_5		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R14218		RunNo: 14218							
Prep Date:	Analysis Date: 10/19/2013		SeqNo: 407476		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.7	0.10	1.600	0	104	90	110			
Chloride	7.6	0.50	8.000	0	95.2	90	110			
Bromide	7.7	0.10	8.000	0	96.0	90	110			
Phosphorus, Orthophosphate (As P	7.6	0.50	8.000	0	95.0	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID A5	SampType: CCV_5		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R14218		RunNo: 14218							
Prep Date:	Analysis Date: 10/19/2013		SeqNo: 407476		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	19	0.50	20.00	0	95.6	90	110			
Nitrate+Nitrite as N	7.8	0.20	8.000	0	97.9	90	110			

Sample ID A5	SampType: CCV_5		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R14381		RunNo: 14381							
Prep Date:	Analysis Date: 10/25/2013		SeqNo: 412709		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	7.9	0.50	8.000	0	98.9	90	110			
Phosphorus, Orthophosphate (As P	8.1	0.50	8.000	0	102	90	110			
Sulfate	20	0.50	20.00	0	100	90	110			
Nitrate+Nitrite as N	8.2	0.20	8.000	0	102	90	110			

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R14381		RunNo: 14381							
Prep Date:	Analysis Date: 10/25/2013		SeqNo: 412711		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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: R14381		RunNo: 14381							
Prep Date:	Analysis Date: 10/25/2013		SeqNo: 412712		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.3	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.5	90	110			
Sulfate	9.6	0.50	10.00	0	96.0	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	96.9	90	110			

Sample ID A6	SampType: CCV_6		TestCode: EPA Method 300.0: Anions							
Client ID: BatchQC	Batch ID: R14381		RunNo: 14381							
Prep Date:	Analysis Date: 10/25/2013		SeqNo: 412721		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	12	0.50	12.00	0	104	90	110			
Phosphorus, Orthophosphate (As P	13	0.50	12.00	0	106	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14381			RunNo: 14381						
Prep Date:	Analysis Date: 10/25/2013			SeqNo: 412721			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	31	0.50	30.00	0	104	90	110			
Nitrate+Nitrite as N	13	0.20	12.00	0	106	90	110			

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14381			RunNo: 14381						
Prep Date:	Analysis Date: 10/25/2013			SeqNo: 412733			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	95.0	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.3	90	110			
Sulfate	12	0.50	12.50	0	96.4	90	110			
Nitrate+Nitrite as N	4.9	0.20	5.000	0	97.9	90	110			

Sample ID A5	SampType: CCV_5			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14381			RunNo: 14381						
Prep Date:	Analysis Date: 10/25/2013			SeqNo: 412745			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	7.9	0.50	8.000	0	99.0	90	110			
Phosphorus, Orthophosphate (As P	8.2	0.50	8.000	0	103	90	110			
Sulfate	20	0.50	20.00	0	100	90	110			
Nitrate+Nitrite as N	8.1	0.20	8.000	0	101	90	110			

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14381			RunNo: 14381						
Prep Date:	Analysis Date: 10/25/2013			SeqNo: 412757			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	12	0.50	12.00	0	104	90	110			
Phosphorus, Orthophosphate (As P	13	0.50	12.00	0	107	90	110			
Sulfate	31	0.50	30.00	0	104	90	110			
Nitrate+Nitrite as N	13	0.20	12.00	0	106	90	110			

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14381			RunNo: 14381						
Prep Date:	Analysis Date: 10/25/2013			SeqNo: 412769			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			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.2	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14381			RunNo: 14381						
Prep Date:	Analysis Date: 10/25/2013			SeqNo: 412769			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	12	0.50	12.50	0	96.0	90	110			
Nitrate+Nitrite as N	4.9	0.20	5.000	0	98.0	90	110			

Sample ID A5	SampType: CCV_5			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14381			RunNo: 14381						
Prep Date:	Analysis Date: 10/26/2013			SeqNo: 412781			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	7.9	0.50	8.000	0	98.6	90	110			
Phosphorus, Orthophosphate (As P	8.2	0.50	8.000	0	103	90	110			
Sulfate	20	0.50	20.00	0	99.4	90	110			
Nitrate+Nitrite as N	8.1	0.20	8.000	0	102	90	110			

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14381			RunNo: 14381						
Prep Date:	Analysis Date: 10/26/2013			SeqNo: 412793			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	12	0.50	12.00	0	104	90	110			
Phosphorus, Orthophosphate (As P	13	0.50	12.00	0	108	90	110			
Sulfate	31	0.50	30.00	0	104	90	110			
Nitrate+Nitrite as N	13	0.20	12.00	0	106	90	110			

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14381			RunNo: 14381						
Prep Date:	Analysis Date: 10/26/2013			SeqNo: 412799			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	95.6	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.9	90	110			
Sulfate	12	0.50	12.50	0	96.7	90	110			
Nitrate+Nitrite as N	4.9	0.20	5.000	0	98.1	90	110			

Sample ID A5	SampType: CCV_5			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14412			RunNo: 14412						
Prep Date:	Analysis Date: 10/28/2013			SeqNo: 413978			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	8.0	0.50	8.000	0	100	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R14412			RunNo: 14412						
Prep Date:	Analysis Date: 10/28/2013			SeqNo: 413980			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P)	ND	0.50								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R14412			RunNo: 14412						
Prep Date:	Analysis Date: 10/28/2013			SeqNo: 413981			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P)	5.0	0.50	5.000	0	100	90	110			

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14412			RunNo: 14412						
Prep Date:	Analysis Date: 10/28/2013			SeqNo: 413990			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P)	12	0.50	12.00	0	101	90	110			

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14412			RunNo: 14412						
Prep Date:	Analysis Date: 10/28/2013			SeqNo: 414002			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P)	4.9	0.50	5.000	0	97.1	90	110			

Sample ID A5	SampType: CCV_5			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14412			RunNo: 14412						
Prep Date:	Analysis Date: 10/28/2013			SeqNo: 414014			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P)	7.7	0.50	8.000	0	96.3	90	110			

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14412			RunNo: 14412						
Prep Date:	Analysis Date: 10/29/2013			SeqNo: 414026			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P)	12	0.50	12.00	0	99.2	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID A4	SampType: CCV_4			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14412			RunNo: 14412						
Prep Date:	Analysis Date: 10/29/2013			SeqNo: 414038		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.7	90	110			

Sample ID A5	SampType: CCV_5			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14412			RunNo: 14412						
Prep Date:	Analysis Date: 10/29/2013			SeqNo: 414050		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	7.7	0.50	8.000	0	96.7	90	110			

Sample ID A6	SampType: CCV_6			TestCode: EPA Method 300.0: Anions						
Client ID: BatchQC	Batch ID: R14412			RunNo: 14412						
Prep Date:	Analysis Date: 10/29/2013			SeqNo: 414054		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	12	0.50	12.00	0	99.7	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R14207			RunNo: 14207					
Prep Date:		Analysis Date: 10/18/2013			SeqNo: 407059	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.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R14207			RunNo: 14207					
Prep Date:		Analysis Date: 10/18/2013			SeqNo: 407059		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		108	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.7	70	130			
Surr: Dibromofluoromethane	11		10.00		111	70	130			
Surr: Toluene-d8	10		10.00		105	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R14207			RunNo: 14207					
Prep Date:		Analysis Date: 10/18/2013			SeqNo: 407061		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	70	130			
Toluene	20	1.0	20.00	0	99.0	82.2	124			
Chlorobenzene	18	1.0	20.00	0	91.1	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R14207			RunNo: 14207						
Prep Date:	Analysis Date: 10/18/2013			SeqNo: 407061		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	23	1.0	20.00	0	115	83.5	155			
Trichloroethene (TCE)	19	1.0	20.00	0	93.9	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID 5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R14226			RunNo: 14226						
Prep Date:	Analysis Date: 10/21/2013			SeqNo: 408455		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R14226			RunNo: 14226					
Prep Date:		Analysis Date: 10/21/2013			SeqNo: 408455	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.0	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	5mL rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R14226	RunNo:	14226					
Prep Date:		Analysis Date:	10/21/2013	SeqNo:	408455	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.9		10.00		99.1	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R14226	RunNo:	14226					
Prep Date:		Analysis Date:	10/21/2013	SeqNo:	408457	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130			
Toluene	21	1.0	20.00	0	106	82.2	124			
Chlorobenzene	19	1.0	20.00	0	94.1	70	130			
1,1-Dichloroethene	28	1.0	20.00	0	139	83.5	155			
Trichloroethene (TCE)	20	1.0	20.00	0	99.0	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		106	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.9	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	mb-9923	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	9923	RunNo:	14326					
Prep Date:	10/21/2013	Analysis Date:	10/24/2013	SeqNo:	411216	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	40								
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.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	mb-9923	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	9923	RunNo:	14326					
Prep Date:	10/21/2013	Analysis Date:	10/24/2013	SeqNo:	411216	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: 2,4,6-Tribromophenol	160		200.0		79.5	23.3	111			
Surr: 2-Fluorobiphenyl	67		100.0		67.3	38.3	110			
Surr: 2-Fluorophenol	87		200.0		43.7	22.7	98			
Surr: 4-Terphenyl-d14	65		100.0		65.5	52.1	116			
Surr: Nitrobenzene-d5	71		100.0		71.4	36.8	111			
Surr: Phenol-d5	67		200.0		33.3	23.4	74.9			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	Ics-9923		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 9923		RunNo: 14326					
Prep Date:	10/21/2013		Analysis Date: 10/24/2013		SeqNo: 411217		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	79	10	100.0	0	79.4	48	101			
4-Chloro-3-methylphenol	160	10	200.0	0	79.0	47.9	109			
2-Chlorophenol	140	10	200.0	0	70.6	40	105			
1,4-Dichlorobenzene	78	10	100.0	0	77.6	40.8	94.3			
2,4-Dinitrotoluene	80	10	100.0	0	79.6	28.3	131			
N-Nitrosodi-n-propylamine	90	10	100.0	0	89.8	46.2	119			
4-Nitrophenol	72	10	200.0	0	36.0	10.5	67.9			
Pentachlorophenol	150	20	200.0	0	75.3	22.4	81.1			
Phenol	68	10	200.0	0	34.2	21.4	72.9			
Pyrene	85	10	100.0	0	84.7	46.9	109			
1,2,4-Trichlorobenzene	76	10	100.0	0	75.9	43.1	98.4			
Surr: 2,4,6-Tribromophenol	180		200.0		92.4	23.3	111			
Surr: 2-Fluorobiphenyl	75		100.0		74.8	38.3	110			
Surr: 2-Fluorophenol	85		200.0		42.7	22.7	98			
Surr: 4-Terphenyl-d14	73		100.0		72.5	52.1	116			
Surr: Nitrobenzene-d5	75		100.0		74.8	36.8	111			
Surr: Phenol-d5	68		200.0		33.9	23.4	74.9			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	1413 uS icv	SampType:	icv	TestCode:	SM2510B: Specific Conductance						
Client ID:	ICV	Batch ID:	R14195	RunNo:	14195						
Prep Date:		Analysis Date:	10/17/2013	SeqNo:	406619	Units:	µmhos/cm				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Conductivity	1400	0.010	1413	0	100	90	110				

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310878

14-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	7.00 pH icv	SampType: icv			TestCode: SM4500-H+B: pH					
Client ID:	ICV	Batch ID: R14195			RunNo: 14195					
Prep Date:		Analysis Date: 10/17/2013			SeqNo: 406660		Units: pH units			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	6.98	1.68								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

Client Name: Western Refining Gallup

Work Order Number: 1310878

RcptNo: 1

Received by/date:

AT 10/17/13

Logged By: Anne Thorne

10/17/2013 10:54:00 AM

Alice Brown

Completed By: **Anne Thorne**

10/17/2013

Anne Howe

Reviewed By:

10/17/13

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples?	Yes ☒	No ☐	NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C	Yes ☒	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☒	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☒	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☒	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☒	NA ☐
10. VOA vials have zero headspace?	Yes ☒	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☒	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☒	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☒	No ☐	
14. Is it clear what analyses were requested?	Yes ☒	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☒	No ☐	
- # of preserved bottles checked for pH: 16

Adjusted? [Signature]

Checked by: _____

of preserved bottles checked for pH: 38
(42 or >12 unless noted)
Adjusted? NO
Checked by: J

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
3	1.0	Good	Yes			

Chain-of-Custody Record

UNOFFICIAL USE.

HALL ENVIRONMENTAL
ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Client: Western Refining Company		X Standard ☐ Rush ☐	
Gallup Refinery		Project Name:	
Mailing Address: NOTE NEW MAILING ADDRESS		2013 SEMI-ANNUAL - PONDS	
92 GIANT CROSSING RD, GALLUP, NM 87301		Project #:	
Phone #: 505-722-3833		EP-1 THRU 12B	
email or Fax#: 505-863-0930		Project Manager:	
QA/QC Package:		C. JOHNSON (cheryl.johnson@wnr.com)	
☐ Standard ☐ Level 4 (Full Validation)		Sampler: C. JOHNSON	
Accreditation:		On Ice: ☒ Yes ☐ No	
☐ NELAP		Sample Temperature: 1.0	
☐ EDD (Type)		HEAL No. 1310878	
Date	Time	Matrix	Sample Request ID
10/15/2013	1530	Aqueous	EP-1
10/15/2013	1512	Aqueous	EP-2
10/15/2013	1453	Aqueous	EP-3
10/15/2013	1437	Aqueous	EP-4
10/15/2013	1421	Aqueous	EP-5
10/15/2013	1257	Aqueous	EP-6
10/15/2013	1246	Aqueous	EP-7
10/15/2013	1229	Aqueous	EP-8
10/15/2013	1206	Aqueous	EP-9
10/15/2013	1321	Aqueous	EP-11
10/15/2013	1358	Aqueous	EP-12A
10/15/2013	1346	Aqueous	EP-12B
Date: 10/17/13	Time: 1054	Relinquished by: [Signature]	Received by: [Signature]
Date:	Time:	Relinquished by:	Received by:

Remarks: WQCC Metals to include RCRA 8 Metals

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 01, 2013

Cheryl Johnson
Western Refining Company
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX

RE: 2013 SEMI ANNUAL PONDS

OrderNo.: 1310873

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 12 sample(s) on 10/17/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Case Narrative

WO#: 1310873
Date: 11/1/2013

CLIENT: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Analytical Notes Regarding BOD:
One of two blanks had a DO depletion >0.2mg/L.

Samples EP-6 and EP-9 are estimated for BOD because all 5 bottles in the dilution series had DO depletion <2.0

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310873

Date Reported: 11/1/2013

CLIENT: Western Refining Company

Client Sample ID: EP-1

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/16/2013 2:20:00 PM

Lab ID: 1310873-001

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	<33.30	2.0	E	mg/L	1	10/22/2013 11:06:00 AM	9884
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	20	10.00	H	CFU/100ml	10	10/18/2013 2:43:00 PM	9890

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310873

Date Reported: 11/1/2013

CLIENT: Western Refining Company

Client Sample ID: EP-2

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/16/2013 12:30:00 PM

Lab ID: 1310873-002

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	420	2.0		mg/L	1	10/23/2013 3:56:00 PM	9906
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	3282	10.00	H	CFU/100ml	10	10/18/2013 2:43:00 PM	9890

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310873

Date Reported: 11/1/2013

CLIENT: Western Refining Company

Client Sample ID: EP-3

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/16/2013 12:40:00 PM

Lab ID: 1310873-003

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	320	2.0		mg/L	1	10/23/2013 3:56:00 PM	9906
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	121	10.00	H	CFU/100ml	10	10/18/2013 2:43:00 PM	9890

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310873

Date Reported: 11/1/2013

CLIENT: Western Refining Company

Client Sample ID: EP-4

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/16/2013 12:50:00 PM

Lab ID: 1310873-004

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	270	2.0		mg/L	1	10/23/2013 3:56:00 PM	9906
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	31	10.00	H	CFU/100ml	10	10/18/2013 2:43:00 PM	9890

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310873

Date Reported: 11/1/2013

CLIENT: Western Refining Company

Client Sample ID: EP-5

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/16/2013 1:00:00 PM

Lab ID: 1310873-005

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	220	2.0		mg/L	1	10/22/2013 11:06:00 AM	9884
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	31	10.00	H	CFU/100ml	10	10/18/2013 2:43:00 PM	9890

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310873

Date Reported: 11/1/2013

CLIENT: Western Refining Company

Client Sample ID: EP-6

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/16/2013 1:10:00 PM

Lab ID: 1310873-006

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	<25.5	2.0	E	mg/L	1	10/23/2013 3:56:00 PM	9906
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	<10	10.00	H	CFU/100ml	10	10/18/2013 2:43:00 PM	9890

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310873

Date Reported: 11/1/2013

CLIENT: Western Refining Company

Client Sample ID: EP-7

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/16/2013 1:20:00 PM

Lab ID: 1310873-007

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	37	2.0		mg/L	1	10/23/2013 3:56:00 PM	9906
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	<10	10.00	H	CFU/100ml	10	10/18/2013 2:43:00 PM	9890

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310873

Date Reported: 11/1/2013

CLIENT: Western Refining Company

Client Sample ID: EP-8

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/16/2013 1:30:00 PM

Lab ID: 1310873-008

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	6.8	2.0		mg/L	1	10/23/2013 3:56:00 PM	9906
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	<10	10.00	H	CFU/100ml	10	10/18/2013 2:43:00 PM	9890

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310873

Date Reported: 11/1/2013

CLIENT: Western Refining Company

Client Sample ID: EP-9

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/16/2013 1:40:00 PM

Lab ID: 1310873-009

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	<12.3	2.0	E	mg/L	1	10/23/2013 3:56:00 PM	9906
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	<10	10.00	H	CFU/100ml	10	10/18/2013 2:43:00 PM	9890

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310873

Date Reported: 11/1/2013

CLIENT: Western Refining Company

Client Sample ID: EP-11

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/16/2013 1:50:00 PM

Lab ID: 1310873-010

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	190	2.0		mg/L	1	10/23/2013 3:56:00 PM	9906
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	20	10.00	H	CFU/100ml	10	10/18/2013 2:43:00 PM	9890

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310873

Date Reported: 11/1/2013

CLIENT: Western Refining Company

Client Sample ID: EP-12A

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/16/2013 2:00:00 PM

Lab ID: 1310873-011

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	270	2.0		mg/L	1	10/23/2013 3:56:00 PM	9906
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	41	10.00	H	CFU/100ml	10	10/18/2013 2:43:00 PM	9890

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310873

Date Reported: 11/1/2013

CLIENT: Western Refining Company

Client Sample ID: EP-12B

Project: 2013 SEMI ANNUAL PONDS

Collection Date: 10/16/2013 2:10:00 PM

Lab ID: 1310873-012

Matrix: AQUEOUS

Received Date: 10/17/2013 10:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	460	2.0		mg/L	1	10/23/2013 3:56:00 PM	9906
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: SMS
E. Coli	231	10.00	H	CFU/100ml	10	10/18/2013 2:43:00 PM	9890

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit



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REPORT OF ANALYSIS

October 25, 2013

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L663962-01

Date Received : October 18, 2013
Description :

Site ID :

Sample ID : 1310873-001C EP-1

Project # :

Collected By :
Collection Date : 10/16/13 14:20

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	560	50.	mg/l	410.4	10/22/13	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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REPORT OF ANALYSIS

October 25, 2013

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : October 18, 2013
Description :
Sample ID : 1310873-002C EP-2
Collected By :
Collection Date : 10/16/13 14:30

ESC Sample # : L663962-02

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	1100	50.	mg/l	410.4	10/22/13	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

October 25, 2013

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : October 18, 2013
Description :
Sample ID : 1310873-003C EP-3
Collected By :
Collection Date : 10/16/13 14:40

ESC Sample # : L663962-03

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	870	100	mg/l	410.4	10/22/13	10

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

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REPORT OF ANALYSIS

October 25, 2013

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : October 18, 2013
Description :
Sample ID : 1310873-004C EP-4
Collected By :
Collection Date : 10/16/13 12:50

ESC Sample # : L663962-04

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	840	100	mg/l	410.4	10/22/13	10

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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October 25, 2013

Anne Thorne
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Albuquerque, NM 87109

Date Received : October 18, 2013
Description :
Sample ID : 1310873-005C EP-5
Collected By :
Collection Date : 10/16/13 13:00

ESC Sample # : L663962-05

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	720	10.	mg/l	410.4	10/24/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

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REPORT OF ANALYSIS

October 25, 2013

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : October 18, 2013
Description :

Sample ID : 1310873-006C EP-6

Collected By :
Collection Date : 10/16/13 13:10

ESC Sample # : L663962-06

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	940	10.	mg/l	410.4	10/24/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

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REPORT OF ANALYSIS

October 25, 2013

Anne Thorne
Hall Environmental Analysis Laborat
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Albuquerque, NM 87109

Date Received : October 18, 2013
Description :
Sample ID : 1310873-007C EP-7
Collected By :
Collection Date : 10/16/13 13:20

ESC Sample # : L663962-07

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	3200	50.	mg/l	410.4	10/24/13	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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REPORT OF ANALYSIS

October 25, 2013

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : October 18, 2013
Description :
Sample ID : 1310873-008C EP-8
Collected By :
Collection Date : 10/16/13 13:30

ESC Sample # : L663962-08

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	9800	100	mg/l	410.4	10/24/13	10

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 10/25/13 12:24 Printed: 10/25/13 12:25



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REPORT OF ANALYSIS

October 25, 2013

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : October 18, 2013
Description :
Sample ID : 1310873-009C EP-9
Collected By :
Collection Date : 10/16/13 13:40

ESC Sample # : L663962-09

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	4700	50.	mg/l	410.4	10/24/13	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

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REPORT OF ANALYSIS

October 25, 2013

Anne Thorne
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4901 Hawkins NE
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Date Received : October 18, 2013
Description :

Sample ID : 1310873-010C EP-11

Collected By :
Collection Date : 10/16/13 13:50

ESC Sample # : L663962-10

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	530	10.	mg/l	410.4	10/24/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

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REPORT OF ANALYSIS

October 25, 2013

Anne Thorne
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4901 Hawkins NE
Albuquerque, NM 87109

Date Received : October 18, 2013
Description :
Sample ID : 1310873-011C EP-12A
Collected By :
Collection Date : 10/16/13 14:00

ESC Sample # : L663962-11

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	930	10.	mg/l	410.4	10/24/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

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REPORT OF ANALYSIS

October 25, 2013

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : October 18, 2013
Description :
Sample ID : 1310873-012C EP-12B
Collected By :
Collection Date : 10/16/13 14:10

ESC Sample # : L663962-12

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	940	10.	mg/l	410.4	10/24/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 10/25/13 12:24 Printed: 10/25/13 12:25



YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L663962

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October 25, 2013

Analyte	Result	Laboratory Blank Units % Rec	Limit	Batch	Date Analyzed
COD	< 10	mg/l		WG688184	10/22/13 16:18
COD	< 10	mg/l		WG688345	10/24/13 14:21

Analyte	Units	Result	Duplicate Duplicate	RPD	Limit	Ref Samp	Batch
COD	mg/l	54.0	55.0	1.83	5	L663908-01	WG688184
COD	mg/l	23.0	21.0	9.09*	5	L663930-01	WG688184
COD	mg/l	6400	6500	1.55	5	L663997-02	WG688345
COD	mg/l	0.0	0.0	0.0	5	L664125-05	WG688345

Analyte	Units	Laboratory Control Sample Known Val Result	% Rec	Limit	Batch
COD	mg/l	183	187.	102.	90-110 WG688184
COD	mg/l	183	194.	106.	90-110 WG688345

Analyte	Units	Result	Laboratory Control Sample Duplicate Ref %Rec	Limit	RPD	Limit	Batch
COD	mg/l	189.	187. 103.	90-110	1.06	5	WG688184
COD	mg/l	193.	194. 105.	90-110	0.517	5	WG688345

Analyte	Units	MS Res	Matrix Spike Ref Res TV	% Rec	Limit	Ref Samp	Batch
COD	mg/l	457.	71.0 400	96.0	90-110	L663847-01	WG688184
COD	mg/l	423.	14.0 400	100.	90-110	L664125-01	WG688345

Analyte	Units	MSD	Matrix Spike Duplicate Ref %Rec	Limit	RPD	Limit	Ref Samp	Batch
COD	mg/l	473.	457. 100.	90-110	3.44	5	L663847-01	WG688184
COD	mg/l	422.	423. 102.	90-110	0.237	5	L664125-01	WG688345

Batch number /Run number / Sample number cross reference

WG688184: R2843623: L663962-01 02 03 04

WG688345: R2844822: L663962-05 06 07 08 09 10 11 12

* * Calculations are performed prior to rounding of reported values.

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310873

01-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	MB-9884		SampType: MBLK		TestCode: SM5210B: BOD					
Client ID:	PBW		Batch ID: 9884		RunNo: 14334					
Prep Date:	10/17/2013		Analysis Date: 10/22/2013		SeqNo: 411610		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	MB--9884		SampType: MBLK		TestCode: SM5210B: BOD					
Client ID:	PBW		Batch ID: 9884		RunNo: 14334					
Prep Date:	10/17/2013		Analysis Date: 10/22/2013		SeqNo: 411611		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	LCS-9884		SampType: LCS		TestCode: SM5210B: BOD					
Client ID:	LCSW		Batch ID: 9884		RunNo: 14334					
Prep Date:	10/17/2013		Analysis Date: 10/22/2013		SeqNo: 411612		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	220	2.0	198.0	0	114	84.6	115.4			

Sample ID	LCSD-9884		SampType: LCSD		TestCode: SM5210B: BOD					
Client ID:	LCSS02		Batch ID: 9884		RunNo: 14334					
Prep Date:	10/17/2013		Analysis Date: 10/22/2013		SeqNo: 411613		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	230	2.0	198.0	0	114	84.6	115.4	0.222	21	

Sample ID	MB-9906		SampType: MBLK		TestCode: SM5210B: BOD					
Client ID:	PBW		Batch ID: 9906		RunNo: 14355					
Prep Date:	10/18/2013		Analysis Date: 10/23/2013		SeqNo: 412125		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	MB--9906		SampType: MBLK		TestCode: SM5210B: BOD					
Client ID:	PBW		Batch ID: 9906		RunNo: 14355					
Prep Date:	10/18/2013		Analysis Date: 10/23/2013		SeqNo: 412126		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310873

01-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	LCS-9906		SampType: LCS		TestCode: SM5210B: BOD					
Client ID:	LCSW		Batch ID: 9906		RunNo: 14355					
Prep Date:	10/18/2013		Analysis Date: 10/23/2013		SeqNo: 412127		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	200	2.0	198.0	0	103	84.6	115.4			

Sample ID	LCSD-9906		SampType: LCSD		TestCode: SM5210B: BOD					
Client ID:	LCSS02		Batch ID: 9906		RunNo: 14355					
Prep Date:	10/18/2013		Analysis Date: 10/23/2013		SeqNo: 412128		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	230	2.0	198.0	0	114	84.6	115.4	10.9	21	

Sample ID	1310873-002ADUP		SampType: DUP		TestCode: SM5210B: BOD					
Client ID:	EP-2		Batch ID: 9906		RunNo: 14355					
Prep Date:	10/18/2013		Analysis Date: 10/23/2013		SeqNo: 412130		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	400	2.0						3.64	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310873

01-Nov-13

Client: Western Refining Company
Project: 2013 SEMI ANNUAL PONDS

Sample ID	MB-9890	SampType:	MBLK	TestCode:	SM 9223B	Fecal Indicator:	E. coli	MPN		
Client ID:	PBW	Batch ID:	9890	RunNo:	14213					
Prep Date:	10/17/2013	Analysis Date:	10/18/2013	SeqNo:	407286	Units:	CFU/100ml			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
E. Coli	<1	1.000								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1310873

RcptNo: 1

Received by/date: AT 10/17/13

Logged By: **Anne Thorne** 10/17/2013 10:54:00 AM *Anne Thorne*

Completed By: **Anne Thorne** 10/17/2013 *Anne Thorne*

Reviewed By: *[Signature]* 10/17/13 @ 1220

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° C to 6.0°C Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved bottles checked for pH: 12
(12 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:	<u>[Blank]</u>	Date:	<u>[Blank]</u>
By Whom:	<u>[Blank]</u>	Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	<u>[Blank]</u>		
Client Instructions:	<u>[Blank]</u>		

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company	
Gallup Refinery	
Mailing Address:	NOTE NEW MAILING ADDRESS
92 GIANT CROSSING RD, GALLUP, NM 87301	
Phone #:	505-722-3833
email or Fax#:	505-863-0930
QA/QC Package:	☐ Level 4 (Full Validation)
☐ Standard	☐ Other
Accreditation:	
☐ NELAP	
☐ EDD (Type)	

Turn-Around Time:	X Standard ☐ Rush
Project Name:	2013 SEMI-ANNUAL - PONDS
Project #:	EP-1 THRU 12B
Project Manager:	C. JOHNSON (cheryl.johnson@wnr.com)
Sampler:	C. JOHNSON
On Ice:	☒ Yes ☐ No
Sample Temperature:	70
Container Type and #	HEAL No. 136873
Preservative Type	

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BOD	COD	F-COL	Air Bubbles (Y or N)
10/16/2013	1420	Aqueous	EP-1	MISC		-001	X	X		
10/16/2013	1230	Aqueous	EP-2	MISC		-002	X	X		
10/16/2013	1240	Aqueous	EP-3	MISC		-003	X	X		
10/16/2013	1250	Aqueous	EP-4	MISC		-004	X	X		
10/16/2013	1300	Aqueous	EP-5	MISC		-005	X	X		
10/16/2013	1310	Aqueous	EP-6	MISC		-006	X	X		
10/16/2013	1320	Aqueous	EP-7	MISC		-007	X	X		
10/16/2013	1330	Aqueous	EP-8	MISC		-008	X	X		
10/16/2013	1340	Aqueous	EP-9	MISC		-009	X	X		
10/16/2013	1350	Aqueous	EP-11	MISC		-010	X	X		
10/16/2013	1400	Aqueous	EP-12A	MISC		-011	X	X		
10/16/2013	1410	Aqueous	EP-12B	MISC		-012	X	X		

Date:	10/17/2013	Time:	1054	Relinquished by:	<i>[Signature]</i>	Received by:	<i>[Signature]</i>	Date:	10/17/2013	Time:	
Date:		Time:		Relinquished by:		Received by:		Date:		Time:	

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



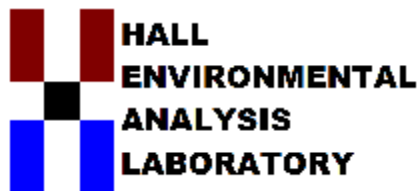
**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 23, 2013

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX: (505) 722-0210

RE: 2013 Annual/Quarterly

OrderNo.: 1309181

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 9/5/2013 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued September 20, 2013.

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. 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. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Case Narrative

WO#: 1309181
Date: 9/23/2013

CLIENT: Western Refining Southwest, Gallup
Project: 2013 Annual/Quarterly

Analytical Notes regarding BOD:
The blank depletion was greater than 0.2mg/L

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309181

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: WEST LDU

Project: 2013 Annual/Quarterly

Collection Date: 9/5/2013 7:30:00 AM

Lab ID: 1309181-001

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	110	10		mg/L	10	9/13/2013 8:28:36 AM	9202
Motor Oil Range Organics (MRO)	ND	50		mg/L	10	9/13/2013 8:28:36 AM	9202
Surr: DNOP	0	70.1-140	S	%REC	10	9/13/2013 8:28:36 AM	9202
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	47	5.0		mg/L	100	9/9/2013 1:29:25 PM	R13246
Surr: BFB	137	51.5-151		%REC	100	9/9/2013 1:29:25 PM	R13246
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	9/9/2013 1:29:25 PM	R13246
Benzene	1500	100		µg/L	100	9/9/2013 1:29:25 PM	R13246
Toluene	3100	100		µg/L	100	9/9/2013 1:29:25 PM	R13246
Ethylbenzene	280	100		µg/L	100	9/9/2013 1:29:25 PM	R13246
Xylenes, Total	7800	200		µg/L	100	9/9/2013 1:29:25 PM	R13246
1,2,4-Trimethylbenzene	1800	100		µg/L	100	9/9/2013 1:29:25 PM	R13246
1,3,5-Trimethylbenzene	620	100		µg/L	100	9/9/2013 1:29:25 PM	R13246
Surr: 4-Bromofluorobenzene	119	85-136		%REC	100	9/9/2013 1:29:25 PM	R13246
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.23	0.0020		mg/L	1	9/10/2013 4:47:05 PM	R13275
Cadmium	ND	0.0020		mg/L	1	9/10/2013 4:47:05 PM	R13275
Chromium	0.28	0.0060	*	mg/L	1	9/10/2013 4:47:05 PM	R13275
Copper	ND	0.0060		mg/L	1	9/10/2013 4:47:05 PM	R13275
Iron	29	1.0	*	mg/L	50	9/11/2013 5:27:34 PM	R13298
Manganese	2.0	0.010	*	mg/L	5	9/11/2013 5:24:11 PM	R13298
Silver	ND	0.025		mg/L	5	9/11/2013 5:24:11 PM	R13298
Zinc	0.35	0.010		mg/L	1	9/10/2013 4:47:05 PM	R13275
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.23	0.0020		mg/L	1	9/12/2013 3:07:16 PM	9255
Cadmium	ND	0.0020		mg/L	1	9/12/2013 3:07:16 PM	9255
Chromium	0.32	0.0060	*	mg/L	1	9/12/2013 3:07:16 PM	9255
Copper	ND	0.0060		mg/L	1	9/12/2013 3:07:16 PM	9255
Iron	37	1.0	*	mg/L	50	9/12/2013 3:35:54 PM	9255
Manganese	2.0	0.010	*	mg/L	5	9/12/2013 3:13:06 PM	9255
Silver	ND	0.025		mg/L	5	9/12/2013 3:13:06 PM	9255
Zinc	1.1	0.050		mg/L	5	9/12/2013 3:13:06 PM	9255
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0086	0.0050		mg/L	5	9/19/2013 2:34:57 PM	R13495
Lead	ND	0.0050		mg/L	5	9/19/2013 2:34:57 PM	R13495
Selenium	0.015	0.010		mg/L	10	9/17/2013 2:35:41 PM	R13428

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309181

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: WEST LDU

Project: 2013 Annual/Quarterly

Collection Date: 9/5/2013 7:30:00 AM

Lab ID: 1309181-001

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Uranium	ND	0.0050		mg/L	5	9/19/2013 2:34:57 PM	R13495
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0088	0.0050		mg/L	5	9/16/2013 2:57:56 PM	9255
Lead	ND	0.0050		mg/L	5	9/16/2013 2:57:56 PM	9255
Selenium	ND	0.020		mg/L	20	9/16/2013 3:19:27 PM	9255
Uranium	ND	0.0050		mg/L	5	9/16/2013 2:57:56 PM	9255
EPA METHOD 245.1: MERCURY							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/17/2013 6:25:56 PM	9344

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309181

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP-1 TO EP-2

Project: 2013 Annual/Quarterly

Collection Date: 9/5/2013 7:50:00 AM

Lab ID: 1309181-002

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	3.3	1.0		mg/L	1	9/13/2013 11:21:02 AM	9202
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/13/2013 11:21:02 AM	9202
Surr: DNOP	134	70.1-140		%REC	1	9/13/2013 11:21:02 AM	9202
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.50		mg/L	10	9/9/2013 3:24:17 PM	R13246
Surr: BFB	93.8	51.5-151		%REC	10	9/9/2013 3:24:17 PM	R13246
SM5210B: BOD							Analyst: ECH
Biochemical Oxygen Demand	670	2.0		mg/L	1	9/11/2013 1:46:00 PM	9209
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	33	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
Toluene	13	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
Ethylbenzene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,2,4-Trimethylbenzene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,3,5-Trimethylbenzene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
Naphthalene	ND	20		µg/L	10	9/10/2013 1:04:18 PM	R13268
1-Methylnaphthalene	ND	40		µg/L	10	9/10/2013 1:04:18 PM	R13268
2-Methylnaphthalene	ND	40		µg/L	10	9/10/2013 1:04:18 PM	R13268
Acetone	2200	500		µg/L	50	9/10/2013 2:15:04 PM	R13270
Bromobenzene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
Bromodichloromethane	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
Bromoform	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
Bromomethane	ND	30		µg/L	10	9/10/2013 1:04:18 PM	R13268
2-Butanone	260	100		µg/L	10	9/10/2013 1:04:18 PM	R13268
Carbon disulfide	ND	100		µg/L	10	9/10/2013 1:04:18 PM	R13268
Carbon Tetrachloride	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
Chlorobenzene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
Chloroethane	ND	20		µg/L	10	9/10/2013 1:04:18 PM	R13268
Chloroform	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
Chloromethane	ND	30		µg/L	10	9/10/2013 1:04:18 PM	R13268
2-Chlorotoluene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
4-Chlorotoluene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
cis-1,2-DCE	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
cis-1,3-Dichloropropene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	9/10/2013 1:04:18 PM	R13268
Dibromochloromethane	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309181

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP-1 TO EP-2

Project: 2013 Annual/Quarterly

Collection Date: 9/5/2013 7:50:00 AM

Lab ID: 1309181-002

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: JMP			
Dibromomethane	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,2-Dichlorobenzene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,3-Dichlorobenzene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,4-Dichlorobenzene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
Dichlorodifluoromethane	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,1-Dichloroethane	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,1-Dichloroethene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,2-Dichloropropane	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,3-Dichloropropane	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
2,2-Dichloropropane	ND	20		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,1-Dichloropropene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
Hexachlorobutadiene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
2-Hexanone	ND	100		µg/L	10	9/10/2013 1:04:18 PM	R13268
Isopropylbenzene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
4-Isopropyltoluene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
4-Methyl-2-pentanone	ND	100		µg/L	10	9/10/2013 1:04:18 PM	R13268
Methylene Chloride	ND	30		µg/L	10	9/10/2013 1:04:18 PM	R13268
n-Butylbenzene	ND	30		µg/L	10	9/10/2013 1:04:18 PM	R13268
n-Propylbenzene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
sec-Butylbenzene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
Styrene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
tert-Butylbenzene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	9/10/2013 1:04:18 PM	R13268
Tetrachloroethene (PCE)	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
trans-1,2-DCE	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
trans-1,3-Dichloropropene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,2,3-Trichlorobenzene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,2,4-Trichlorobenzene	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,1,1-Trichloroethane	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,1,2-Trichloroethane	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
Trichloroethene (TCE)	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
Trichlorofluoromethane	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
1,2,3-Trichloropropane	ND	20		µg/L	10	9/10/2013 1:04:18 PM	R13268
Vinyl chloride	ND	10		µg/L	10	9/10/2013 1:04:18 PM	R13268
Xylenes, Total	ND	15		µg/L	10	9/10/2013 1:04:18 PM	R13268
Surr: 1,2-Dichloroethane-d4	94.3	70-130		%REC	10	9/10/2013 1:04:18 PM	R13268
Surr: 4-Bromofluorobenzene	91.8	70-130		%REC	10	9/10/2013 1:04:18 PM	R13268
Surr: Dibromofluoromethane	97.7	70-130		%REC	10	9/10/2013 1:04:18 PM	R13268

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309181

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: STP-1 TO EP-2

Project: 2013 Annual/Quarterly

Collection Date: 9/5/2013 7:50:00 AM

Lab ID: 1309181-002

Matrix: AQUEOUS

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Surr: Toluene-d8	99.1	70-130		%REC	10	9/10/2013 1:04:18 PM	R13268
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	2340	40.0	*	mg/L	1	9/12/2013 7:15:00 AM	9235

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309181

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2013 Annual/Quarterly

Collection Date:

Lab ID: 1309181-003

Matrix: TRIP BLANK

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: JMP
Benzene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Toluene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Ethylbenzene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Naphthalene	ND	2.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1-Methylnaphthalene	ND	4.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
2-Methylnaphthalene	ND	4.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Acetone	ND	10		µg/L	1	9/10/2013 12:35:59 PM	R13268
Bromobenzene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Bromodichloromethane	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Bromoform	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Bromomethane	ND	3.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
2-Butanone	ND	10		µg/L	1	9/10/2013 12:35:59 PM	R13268
Carbon disulfide	ND	10		µg/L	1	9/10/2013 12:35:59 PM	R13268
Carbon Tetrachloride	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Chlorobenzene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Chloroethane	ND	2.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Chloroform	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Chloromethane	ND	3.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
2-Chlorotoluene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
4-Chlorotoluene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
cis-1,2-DCE	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Dibromochloromethane	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Dibromomethane	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1,1-Dichloroethane	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1,1-Dichloroethene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1,2-Dichloropropane	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1,3-Dichloropropane	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
2,2-Dichloropropane	ND	2.0		µg/L	1	9/10/2013 12:35:59 PM	R13268

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1309181

Date Reported: 9/23/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2013 Annual/Quarterly

Collection Date:

Lab ID: 1309181-003

Matrix: TRIP BLANK

Received Date: 9/5/2013 1:24:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: JMP
1,1-Dichloropropene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Hexachlorobutadiene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
2-Hexanone	ND	10		µg/L	1	9/10/2013 12:35:59 PM	R13268
Isopropylbenzene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
4-Isopropyltoluene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
4-Methyl-2-pentanone	ND	10		µg/L	1	9/10/2013 12:35:59 PM	R13268
Methylene Chloride	ND	3.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
n-Butylbenzene	ND	3.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
n-Propylbenzene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
sec-Butylbenzene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Styrene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
tert-Butylbenzene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
trans-1,2-DCE	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Trichlorofluoromethane	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Vinyl chloride	ND	1.0		µg/L	1	9/10/2013 12:35:59 PM	R13268
Xylenes, Total	ND	1.5		µg/L	1	9/10/2013 12:35:59 PM	R13268
Surr: 1,2-Dichloroethane-d4	92.3	70-130		%REC	1	9/10/2013 12:35:59 PM	R13268
Surr: 4-Bromofluorobenzene	95.9	70-130		%REC	1	9/10/2013 12:35:59 PM	R13268
Surr: Dibromofluoromethane	96.8	70-130		%REC	1	9/10/2013 12:35:59 PM	R13268
Surr: Toluene-d8	100	70-130		%REC	1	9/10/2013 12:35:59 PM	R13268

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	



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Est. 1970

REPORT OF ANALYSIS

September 16, 2013

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L656746-01

Date Received : September 11, 2013
Description :

Site ID :

Sample ID : 1309181-002E STP-1 TO EP-2

Project # :

Collected By :
Collection Date : 09/05/13 07:50

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	1200	20.	mg/l	410.4	09/14/13	2

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 09/16/13 10:09 Printed: 09/16/13 10:09



YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory
 Anne Thorne
 4901 Hawkins NE
 Albuquerque, NM 87109

Quality Assurance Report
 Level II

L656746

12065 Lebanon Rd.
 Mt. Juliet, TN 37122
 (615) 758-5858
 1-800-767-5859
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

September 16, 2013

Analyte	Result	Laboratory Blank Units % Rec	Limit	Batch	Date Analyzed
COD	< 10	mg/l		WG681846	09/14/13 14:27

Analyte	Units	Result	Duplicate Duplicate	RPD	Limit	Ref Samp	Batch
COD	mg/l	200.	200.	0.0	5	L656652-01	WG681846
COD	mg/l	43.0	45.0	4.55	5	L656684-01	WG681846

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
COD	mg/l	183	193.	105.	90-110	WG681846

Analyte	Units	Laboratory Control Sample Duplicate Result Ref %Rec	Limit	RPD	Limit	Batch
COD	mg/l	194. 193. 106.	90-110	0.517	5	WG681846

Analyte	Units	MS Res	Matrix Spike Ref Res TV	% Rec	Limit	Ref Samp	Batch
COD	mg/l	458.	56.0 400	100.	90-110	L656725-01	WG681846

Analyte	Units	MSD	Matrix Spike Duplicate Ref %Rec	Limit	RPD	Limit Ref Samp	Batch
COD	mg/l	453.	458. 99.2	90-110	1.10 5	L656725-01	WG681846

Batch number /Run number / Sample number cross reference

WG681846: R2816622: L656746-01

* * Calculations are performed prior to rounding of reported values.
 * Performance of this Analyte is outside of established criteria.
 For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309181

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID: MB	SampType: MBLK	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: PBW	Batch ID: R13275	RunNo: 13275								
Prep Date:	Analysis Date: 9/10/2013	SeqNo: 377462 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								
Zinc	ND	0.010								

Sample ID: LCS	SampType: LCS	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: LCSW	Batch ID: R13275	RunNo: 13275								
Prep Date:	Analysis Date: 9/10/2013	SeqNo: 377463 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.51	0.0060	0.5000	0	101	85	115			
Copper	0.50	0.0060	0.5000	0	99.2	85	115			
Zinc	0.52	0.010	0.5000	0	104	85	115			

Sample ID: MB	SampType: MBLK	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: PBW	Batch ID: R13298	RunNo: 13298								
Prep Date:	Analysis Date: 9/11/2013	SeqNo: 378264 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID: LCS	SampType: LCS	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: LCSW	Batch ID: R13298	RunNo: 13298								
Prep Date:	Analysis Date: 9/11/2013	SeqNo: 378265 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.47	0.020	0.5000	0	94.2	85	115			
Manganese	0.47	0.0020	0.5000	0	93.8	85	115			
Silver	0.086	0.0050	0.1000	0	85.6	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309181

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID: MB-9255		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals						
Client ID: PBW		Batch ID: 9255		RunNo: 13304						
Prep Date: 9/11/2013		Analysis Date: 9/11/2013		SeqNo: 378491		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID: LCS-9255		SampType: LCS			TestCode: EPA Method 200.7: Total Metals					
Client ID: LCSW		Batch ID: 9255			RunNo: 13304					
Prep Date: 9/11/2013		Analysis Date: 9/11/2013			SeqNo: 378492		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0	105	85	115			
Cadmium	0.53	0.0020	0.5000	0	106	85	115			
Chromium	0.52	0.0060	0.5000	0	105	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Manganese	0.51	0.0020	0.5000	0	101	85	115			
Silver	0.091	0.0050	0.1000	0	91.2	85	115			

Sample ID: MB-9255		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals						
Client ID: PBW		Batch ID: 9255		RunNo: 13298						
Prep Date: 9/11/2013		Analysis Date: 9/11/2013		SeqNo: 378572		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Sample ID: LCS-9255		SampType: LCS		TestCode: EPA Method 200.7: Total Metals						
Client ID: LCSW		Batch ID: 9255		RunNo: 13298						
Prep Date: 9/11/2013		Analysis Date: 9/11/2013		SeqNo: 378573		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.48	0.010	0.5000	0	96.0	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309181

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID: 1309184-008FMS	SampType: MS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: R13428		RunNo: 13428							
Prep Date:	Analysis Date: 9/17/2013		SeqNo: 382020		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.12	0.0050	0.1250	0.004665	93.9	70	130			

Sample ID: LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: R13428		RunNo: 13428							
Prep Date:	Analysis Date: 9/17/2013		SeqNo: 382027		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.026	0.0010	0.02500	0	105	85	115			

Sample ID: LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: R13428		RunNo: 13428							
Prep Date:	Analysis Date: 9/17/2013		SeqNo: 382028		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID: LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: R13428		RunNo: 13428							
Prep Date:	Analysis Date: 9/17/2013		SeqNo: 382029		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.026	0.0010	0.02500	0	102	85	115			

Sample ID: MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R13428		RunNo: 13428							
Prep Date:	Analysis Date: 9/17/2013		SeqNo: 382030		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID: MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: R13428		RunNo: 13428							
Prep Date:	Analysis Date: 9/17/2013		SeqNo: 382031		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309181

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID: MB	SampType: MBLK	TestCode: EPA 200.8: Dissolved Metals								
Client ID: PBW	Batch ID: R13428	RunNo: 13428								
Prep Date:	Analysis Date: 9/17/2013	SeqNo: 382032		Units: mg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID: 1309206-002AMS	SampType: MS	TestCode: EPA 200.8: Dissolved Metals								
Client ID: BatchQC	Batch ID: R13495	RunNo: 13495								
Prep Date:	Analysis Date: 9/19/2013	SeqNo: 383978		Units: mg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.026	0.0010	0.02500	0.0009368	101	70	130			
Uranium	0.039	0.0010	0.02500	0.01075	111	70	130			

Sample ID: 1309206-002AMSD	SampType: MSD	TestCode: EPA 200.8: Dissolved Metals								
Client ID: BatchQC	Batch ID: R13495	RunNo: 13495								
Prep Date:	Analysis Date: 9/19/2013	SeqNo: 383979		Units: mg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.026	0.0010	0.02500	0.0009368	101	70	130	0.774	20	
Uranium	0.038	0.0010	0.02500	0.01075	108	70	130	2.47	20	

Sample ID: 1309206-006AMS	SampType: MS	TestCode: EPA 200.8: Dissolved Metals								
Client ID: BatchQC	Batch ID: R13495	RunNo: 13495								
Prep Date:	Analysis Date: 9/19/2013	SeqNo: 383983		Units: mg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0.0001238	91.9	70	130			
Lead	0.025	0.0010	0.02500	0.00007093	101	70	130			
Uranium	0.028	0.0010	0.02500	0.001611	106	70	130			

Sample ID: LCS	SampType: LCS	TestCode: EPA 200.8: Dissolved Metals								
Client ID: LCSW	Batch ID: R13495	RunNo: 13495								
Prep Date:	Analysis Date: 9/19/2013	SeqNo: 383984		Units: mg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	93.7	85	115			
Lead	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.027	0.0010	0.02500	0	108	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309181

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID: MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW		Batch ID: R13495		RunNo: 13495						
Prep Date:		Analysis Date: 9/19/2013		SeqNo: 383985		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309181

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID: 1309161-002ALLMS		SampType: MSLL		TestCode: 200.8 ICPMS Metals:Total						
Client ID: BatchQC		Batch ID: 9255		RunNo: 13390						
Prep Date: 9/11/2013		Analysis Date: 9/16/2013		SeqNo: 380985		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.034	0.0010	0.02500	0.008948	98.9	70	130			

Sample ID: 1309161-002ALLMS		SampType: MSDLL		TestCode: 200.8 ICPMS Metals:Total						
Client ID: BatchQC		Batch ID: 9255		RunNo: 13390						
Prep Date: 9/11/2013		Analysis Date: 9/16/2013		SeqNo: 380986		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.034	0.0010	0.02500	0.008948	98.7	70	130	0.164	20	

Sample ID: MB-9255		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total						
Client ID: PBW		Batch ID: 9255		RunNo: 13390						
Prep Date: 9/11/2013		Analysis Date: 9/16/2013		SeqNo: 381026			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID: LLLCS-9255		SampType: LCSLL			TestCode: 200.8 ICPMS Metals:Total					
Client ID: BatchQC		Batch ID: 9255			RunNo: 13390					
Prep Date: 9/11/2013		Analysis Date: 9/16/2013			SeqNo: 381032		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.5	85	115			
Lead	0.025	0.0010	0.02500	0	98.4	85	115			
Selenium	0.024	0.0010	0.02500	0	95.0	85	115			
Uranium	0.025	0.0010	0.02500	0	101	85	115			

Sample ID: 1307899-001BLLMS SampType: MSLL TestCode: 200.8 ICPMS Metals:Total										
Client ID: BatchQC		Batch ID: 9255			RunNo: 13390					
Prep Date: 9/11/2013		Analysis Date: 9/16/2013			SeqNo: 381067		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.032	0.0010	0.02500	0.007856	96.0	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309181

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID: MB-9344	SampType: mblk	TestCode: EPA Method 245.1: Mercury
Client ID: PBW	Batch ID: 9344	RunNo: 13439
Prep Date: 9/17/2013	Analysis Date: 9/17/2013	SeqNo: 382369 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Mercury	ND 0.00020	

Sample ID: LCS-9344	SampType: lcs	TestCode: EPA Method 245.1: Mercury
Client ID: LCSW	Batch ID: 9344	RunNo: 13439
Prep Date: 9/17/2013	Analysis Date: 9/17/2013	SeqNo: 382370 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Mercury	0.0049 0.00020 0.005000 0 97.5 80 120	

Sample ID: 1309391-001AMS	SampType: ms	TestCode: EPA Method 245.1: Mercury
Client ID: BatchQC	Batch ID: 9344	RunNo: 13439
Prep Date: 9/17/2013	Analysis Date: 9/17/2013	SeqNo: 382397 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Mercury	0.0048 0.00020 0.005000 0 96.3 75 125	

Sample ID: 1309391-001AMSD	SampType: msd	TestCode: EPA Method 245.1: Mercury
Client ID: BatchQC	Batch ID: 9344	RunNo: 13439
Prep Date: 9/17/2013	Analysis Date: 9/17/2013	SeqNo: 382398 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Mercury	0.0048 0.00020 0.005000 0 95.4 75 125 0.898 20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309181

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID: MB-9202	SampType: MBLK	TestCode: EPA Method 8015D: Diesel Range								
Client ID: PBW	Batch ID: 9202	RunNo: 13234								
Prep Date: 9/6/2013	Analysis Date: 9/9/2013	SeqNo: 376420	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		110	70.1	140			

Sample ID: LCS-9202	SampType: LCS	TestCode: EPA Method 8015D: Diesel Range								
Client ID: LCSW	Batch ID: 9202	RunNo: 13259								
Prep Date: 9/6/2013	Analysis Date: 9/10/2013	SeqNo: 377202	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.9	1.0	5.000	0	118	73.3	145			
Surr: DNOP	0.67		0.5000		134	70.1	140			

Sample ID: LCSD-9202	SampType: LCS	TestCode: EPA Method 8015D: Diesel Range								
Client ID: LCSW	Batch ID: 9202	RunNo: 13259								
Prep Date: 9/6/2013	Analysis Date: 9/10/2013	SeqNo: 377203	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	117	73.3	145	1.53	0	
Surr: DNOP	0.65		0.5000		131	70.1	140	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309181

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID: 5ML RB	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: R13246		RunNo: 13246							
Prep Date:	Analysis Date: 9/9/2013		SeqNo: 376802		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		92.8	51.5	151			

Sample ID: 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: R13246		RunNo: 13246							
Prep Date:	Analysis Date: 9/9/2013		SeqNo: 376806		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	95.8	80	120			
Surr: BFB	20		20.00		102	51.5	151			

Sample ID: 1309181-002AMS	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: STP-1 TO EP-2	Batch ID: R13246		RunNo: 13246							
Prep Date:	Analysis Date: 9/9/2013		SeqNo: 376811		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.9	0.50	5.000	0	98.4	67.7	128			
Surr: BFB	200		200.0		102	51.5	151			

Sample ID: 1309181-002AMSD	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: STP-1 TO EP-2	Batch ID: R13246		RunNo: 13246							
Prep Date:	Analysis Date: 9/9/2013		SeqNo: 376812		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.7	0.50	5.000	0	93.1	67.7	128	5.51	20	
Surr: BFB	210		200.0		106	51.5	151	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309181

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID: 100NG BTEX LCS	SampType: LCS			TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSW	Batch ID: R13246			RunNo: 13246						
Prep Date:	Analysis Date: 9/9/2013			SeqNo: 376829			Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	23	2.5	20.00	0	116	76.8	124			
Benzene	21	1.0	20.00	0	104	80	120			
Toluene	21	1.0	20.00	0	105	80	120			
Ethylbenzene	21	1.0	20.00	0	103	80	120			
Xylenes, Total	63	2.0	60.00	0	104	80	120			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	103	80	120			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	101	80	120			
Surr: 4-Bromofluorobenzene	22		20.00		109	85	136			

Sample ID: 5ML RB		SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID: PBW		Batch ID: R13246			RunNo: 13246					
Prep Date:		Analysis Date: 9/9/2013			SeqNo: 376834		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	20		20.00		102	85	136			

Sample ID: 1309181-001A MS		SampType: MS		TestCode: EPA Method 8021B: Volatiles						
Client ID: WEST LDU		Batch ID: R13246		RunNo: 13260						
Prep Date:		Analysis Date: 9/10/2013		SeqNo: 377625			Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1900	250	2000	0	93.0	56.1	130			
Benzene	3100	100	2000	1540	78.3	73.4	119			
Toluene	4100	100	2000	3057	52.6	80	120			S
Ethylbenzene	2200	100	2000	275.6	96.0	80	120			
Xylenes, Total	11000	200	6000	7809	52.7	80	120			S
1,2,4-Trimethylbenzene	2900	100	2000	1755	57.6	80	120			S
1,3,5-Trimethylbenzene	2300	100	2000	624.1	84.3	80	120			
Surr: 4-Bromofluorobenzene	2200		2000		108	85	136			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309181

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID: 1309181-001A MSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles						
Client ID: WEST LDU		Batch ID: R13246		RunNo: 13260						
Prep Date:		Analysis Date: 9/10/2013		SeqNo: 377626		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1800	250	2000	0	92.0	56.1	130	1.00	20	
Benzene	3000	100	2000	1540	74.7	73.4	119	2.33	20	
Toluene	4000	100	2000	3057	48.4	80	120	2.05	20	S
Ethylbenzene	2100	100	2000	275.6	93.0	80	120	2.84	20	
Xylenes, Total	11000	200	6000	7809	50.0	80	120	1.47	20	S
1,2,4-Trimethylbenzene	2900	100	2000	1755	56.6	80	120	0.697	20	S
1,3,5-Trimethylbenzene	2300	100	2000	624.1	82.4	80	120	1.60	20	
Surr: 4-Bromofluorobenzene	2200		2000		108	85	136	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309181

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID: 5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R13268			RunNo: 13268						
Prep Date:	Analysis Date: 9/10/2013			SeqNo: 377179		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309181

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID: 5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R13268			RunNo: 13268						
Prep Date:	Analysis Date: 9/10/2013			SeqNo: 377179		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.2	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.0	70	130			
Surr: Toluene-d8	9.9		10.00		99.0	70	130			

Sample ID: 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R13268			RunNo: 13268						
Prep Date:	Analysis Date: 9/10/2013			SeqNo: 377180		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	117	70	130			
Toluene	21	1.0	20.00	0	107	82.2	124			
Chlorobenzene	21	1.0	20.00	0	106	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309181

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID: 100ng lcs		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW		Batch ID: R13268		RunNo: 13268						
Prep Date:		Analysis Date: 9/10/2013		SeqNo: 377180		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	25	1.0	20.00	0	123	83.5	155			
Trichloroethene (TCE)	21	1.0	20.00	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.4	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.2	70	130			
Surr: Dibromofluoromethane	9.7		10.00		97.4	70	130			
Surr: Toluene-d8	9.7		10.00		97.4	70	130			

Sample ID: 1309181-002ams		SampType: MS		TestCode: EPA Method 8260B: VOLATILES						
Client ID: STP-1 TO EP-2		Batch ID: R13268		RunNo: 13268						
Prep Date:		Analysis Date: 9/10/2013		SeqNo: 377186		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	210	10	200.0	33.11	86.1	67.9	137			
Toluene	180	10	200.0	13.44	81.7	77	127			
Chlorobenzene	160	10	200.0	0	79.4	70	130			
1,1-Dichloroethene	ND	10	200.0	0	0	66.5	131			S
Trichloroethene (TCE)	160	10	200.0	0	79.3	66.3	134			
Surr: 1,2-Dichloroethane-d4	95		100.0		94.9	70	130			
Surr: 4-Bromofluorobenzene	93		100.0		93.3	70	130			
Surr: Dibromofluoromethane	98		100.0		97.8	70	130			
Surr: Toluene-d8	98		100.0		97.6	70	130			

Sample ID: 1309181-002amsd		SampType: MSD		TestCode: EPA Method 8260B: VOLATILES						
Client ID: STP-1 TO EP-2		Batch ID: R13268		RunNo: 13268						
Prep Date:		Analysis Date: 9/10/2013		SeqNo: 377187		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	220	10	200.0	33.11	95.9	67.9	137	9.10	20	
Toluene	200	10	200.0	13.44	93.3	77	127	12.3	20	
Chlorobenzene	190	10	200.0	0	93.0	70	130	15.8	20	
1,1-Dichloroethene	ND	10	200.0	0	0	66.5	131	0	20	S
Trichloroethene (TCE)	180	10	200.0	0	91.4	66.3	134	14.2	20	
Surr: 1,2-Dichloroethane-d4	96		100.0		95.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	91		100.0		91.1	70	130	0	0	
Surr: Dibromofluoromethane	97		100.0		96.9	70	130	0	0	
Surr: Toluene-d8	98		100.0		98.3	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309181

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID: 5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R13270			RunNo: 13270						
Prep Date:	Analysis Date: 9/10/2013			SeqNo: 377235		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acetone	ND	10								
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.3	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	11		10.00		112	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID: 100ng lcs 1	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R13270			RunNo: 13270						
Prep Date:	Analysis Date: 9/10/2013			SeqNo: 377237		Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.2	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	11		10.00		111	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID: 1309310-001a ms	SampType: MS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: BatchQC	Batch ID: R13270			RunNo: 13270						
Prep Date:	Analysis Date: 9/10/2013			SeqNo: 377242		Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	93		100.0		93.1	70	130			
Surr: 4-Bromofluorobenzene	96		100.0		96.0	70	130			
Surr: Dibromofluoromethane	110		100.0		110	70	130			
Surr: Toluene-d8	100		100.0		100	70	130			

Sample ID: 1309310-001a msd	SampType: MSD			TestCode: EPA Method 8260B: VOLATILES						
Client ID: BatchQC	Batch ID: R13270			RunNo: 13270						
Prep Date:	Analysis Date: 9/10/2013			SeqNo: 377243		Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	92		100.0		92.3	70	130	0	0	
Surr: 4-Bromofluorobenzene	97		100.0		96.6	70	130	0	0	
Surr: Dibromofluoromethane	110		100.0		107	70	130	0	0	
Surr: Toluene-d8	100		100.0		103	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309181

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID: MB-9209	SampType: MBLK	TestCode: SM5210B: BOD
Client ID: PBW	Batch ID: 9209	RunNo: 13401
Prep Date: 9/6/2013	Analysis Date: 9/11/2013	SeqNo: 381127 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Biochemical Oxygen Demand	ND	2.0

Sample ID: MB--9209	SampType: MBLK	TestCode: SM5210B: BOD
Client ID: PBW	Batch ID: 9209	RunNo: 13401
Prep Date: 9/6/2013	Analysis Date: 9/11/2013	SeqNo: 381128 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Biochemical Oxygen Demand	ND	2.0

Sample ID: LCS-9209	SampType: LCS	TestCode: SM5210B: BOD
Client ID: LCSW	Batch ID: 9209	RunNo: 13401
Prep Date: 9/6/2013	Analysis Date: 9/11/2013	SeqNo: 381129 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Biochemical Oxygen Demand	150	2.0 198.0 0 76.0 84.6 115.4 S

Sample ID: LCSD-9209	SampType: LCSD	TestCode: SM5210B: BOD
Client ID: LCSS02	Batch ID: 9209	RunNo: 13401
Prep Date: 9/6/2013	Analysis Date: 9/11/2013	SeqNo: 381130 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Biochemical Oxygen Demand	140	2.0 198.0 0 69.4 84.6 115.4 9.03 20 S

Sample ID: 1309181-002CDUP	SampType: DUP	TestCode: SM5210B: BOD
Client ID: STP-1 TO EP-2	Batch ID: 9209	RunNo: 13401
Prep Date: 9/6/2013	Analysis Date: 9/11/2013	SeqNo: 381132 Units: mg/L
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Biochemical Oxygen Demand	580	2.0 13.3 20

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309181

23-Sep-13

Client: Western Refining Southwest, Gallup

Project: 2013 Annual/Quarterly

Sample ID: MB-9235	SampType: MBLK	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: PBW	Batch ID: 9235	RunNo: 13300								
Prep Date: 9/10/2013	Analysis Date: 9/12/2013	SeqNo: 378371			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: LCS-9235	SampType: LCS	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: LCSW	Batch ID: 9235	RunNo: 13300								
Prep Date: 9/10/2013	Analysis Date: 9/12/2013	SeqNo: 378372			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	20.0	1000	0	102	80	120			

Sample ID: 1309206-003AMS	SampType: MS	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: BatchQC	Batch ID: 9235	RunNo: 13300								
Prep Date: 9/10/2013	Analysis Date: 9/12/2013	SeqNo: 378377			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	4050	40.0	2000	2010	102	80	120			

Sample ID: 1309206-003AMSD	SampType: MSD	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: BatchQC	Batch ID: 9235	RunNo: 13300								
Prep Date: 9/10/2013	Analysis Date: 9/12/2013	SeqNo: 378378			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	4060	40.0	2000	2010	102	80	120	0.197	5	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1309181

RcptNo: 1

Received by/date:

AT 09/05/13

Logged By: **Michelle Garcia**

9/5/2013 1:24:00 PM

Michelle Garcia

Completed By: **Michelle Garcia**

9/5/2013 4:20:23 PM

Mitchell Garcia

Reviewed By:



09/05/13 @ 1636

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples?	Yes ☒	No ☐	NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C	Yes ☒	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☒	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☒	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☒	No ☒	
9. Was preservative added to bottles?	Yes ☒	No ☒	NA ☐
OR METALS ANALYSIS: ADDED 1mL HNO_3 TO COOL FOR ACCEPTABLE pH. HOLD IN LOG IN FOR			
10. VOA vials have zero headspace?	Yes ☒	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☒	

FOR METALS ANALYSIS: ADDED 1 mL HNO₃ TO -00K FOR ACCEPTABLE PH. HOLDING LOG IN FOR 24 HOURS AFTER PRESERVAT.

12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

14. Is it clear what analyses were requested?

15. Were all holding times able to be met?
(If no, notify customer for authorization.)

of preserved bottles checked for pH:

ed 2
 <2 or >12

Adjusted?

Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	13	Good	Not Present			

