

AP-111

BINDER 2

4 of 5

**Annual Ground Water Monitoring Report:
Gallup Refinery – 2012**



Western Refining

Gallup, New Mexico

April 17, 2012

Appendix K



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

October 02, 2012

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 3rd QTR 2012 Groundwater Sampling

OrderNo.: 1208A05

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 8/22/2012 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 1208A05

Date Reported: 10/2/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: East LDU

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/21/2012 7:30:00 PM

Lab ID: 1208A05-001

Matrix: AQUEOUS

Received Date: 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	10	1.0		mg/L	1	8/23/2012 6:45:12 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/23/2012 6:45:12 PM
Surr: DNOP	132	79.5-166		%REC	1	8/23/2012 6:45:12 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	17	5.0		mg/L	100	8/24/2012 9:52:56 PM
Surr: BFB	96.5	69.8-119		%REC	100	8/24/2012 9:52:56 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	8/24/2012 9:52:56 PM
Benzene	1200	100		µg/L	100	8/24/2012 9:52:56 PM
Toluene	330	100		µg/L	100	8/24/2012 9:52:56 PM
Ethylbenzene	460	100		µg/L	100	8/24/2012 9:52:56 PM
Xylenes, Total	5700	200		µg/L	100	8/24/2012 9:52:56 PM
1,2,4-Trimethylbenzene	840	100		µg/L	100	8/24/2012 9:52:56 PM
1,3,5-Trimethylbenzene	280	100		µg/L	100	8/24/2012 9:52:56 PM
Surr: 4-Bromofluorobenzene	105	55-140		%REC	100	8/24/2012 9:52:56 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	0.62	0.0020		mg/L	1	9/4/2012 12:03:46 PM
Cadmium	ND	0.0020		mg/L	1	9/4/2012 12:03:46 PM
Chromium	0.46	0.0060	*	mg/L	1	9/4/2012 12:03:46 PM
Copper	ND	0.0060		mg/L	1	9/4/2012 12:03:46 PM
Iron	0.044	0.020		mg/L	1	9/4/2012 12:03:46 PM
Lead	ND	0.0050		mg/L	1	9/4/2012 12:03:46 PM
Manganese	1.2	0.010	*	mg/L	5	9/4/2012 12:07:45 PM
Selenium	ND	0.050		mg/L	1	9/12/2012 12:11:27 PM
Silver	ND	0.0050		mg/L	1	9/6/2012 12:44:02 PM
Zinc	ND	0.010		mg/L	1	9/4/2012 12:03:46 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.67	0.0020		mg/L	1	8/28/2012 5:21:18 PM
Cadmium	ND	0.0020		mg/L	1	8/28/2012 5:21:18 PM
Chromium	0.51	0.0060	*	mg/L	1	8/28/2012 5:21:18 PM
Copper	ND	0.0060		mg/L	1	8/28/2012 5:21:18 PM
Iron	0.099	0.020		mg/L	1	8/28/2012 5:21:18 PM
Lead	ND	0.0050		mg/L	1	8/28/2012 5:21:18 PM
Manganese	1.2	0.010	*	mg/L	5	8/28/2012 5:28:30 PM
Selenium	ND	0.050		mg/L	1	9/26/2012 4:26:43 PM
Silver	ND	0.0050		mg/L	1	8/28/2012 5:21:18 PM
Zinc	ND	0.010		mg/L	1	8/28/2012 5:21:18 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0062	0.0010		mg/L	1	8/31/2012 12:35:23 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

Analytical Report

Lab Order 1208A05

Date Reported: 10/2/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** East LDU**Project:** 3rd QTR 2012 Groundwater Sampling**Collection Date:** 8/21/2012 7:30:00 PM**Lab ID:** 1208A05-001**Matrix:** AQUEOUS**Received Date:** 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Uranium	ND	0.0010		mg/L	1	9/4/2012 3:25:38 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0094	0.0025		mg/L	2.5	8/30/2012 2:33:48 PM
Uranium	ND	0.0025		mg/L	2.5	8/30/2012 2:33:48 PM
EPA METHOD 245.1: MERCURY						Analyst: TES
Mercury	ND	0.00020		mg/L	1	8/30/2012 4:37:26 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 1208A05

Date Reported: 10/2/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: West LDU

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/21/2012 7:40:00 PM

Lab ID: 1208A05-002

Matrix: AQUEOUS

Received Date: 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						
						Analyst: JMP
Diesel Range Organics (DRO)	4.0	1.0	H	mg/L	1	8/23/2012 7:07:00 PM
Motor Oil Range Organics (MRO)	ND	5.0	H	mg/L	1	8/23/2012 7:07:00 PM
Surr: DNOP	140	79.5-166	H	%REC	1	8/23/2012 7:07:00 PM
EPA METHOD 8015B: GASOLINE RANGE						
						Analyst: NSB
Gasoline Range Organics (GRO)	18	5.0		mg/L	100	8/24/2012 11:53:31 PM
Surr: BFB	95.4	69.8-119		%REC	100	8/24/2012 11:53:31 PM
EPA METHOD 8021B: VOLATILES						
						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	8/24/2012 11:53:31 PM
Benzene	1800	100		µg/L	100	8/24/2012 11:53:31 PM
Toluene	3200	100		µg/L	100	8/24/2012 11:53:31 PM
Ethylbenzene	660	100		µg/L	100	8/24/2012 11:53:31 PM
Xylenes, Total	3100	200		µg/L	100	8/24/2012 11:53:31 PM
1,2,4-Trimethylbenzene	550	100		µg/L	100	8/24/2012 11:53:31 PM
1,3,5-Trimethylbenzene	240	100		µg/L	100	8/24/2012 11:53:31 PM
Surr: 4-Bromofluorobenzene	106	55-140		%REC	100	8/24/2012 11:53:31 PM
EPA METHOD 200.7: DISSOLVED METALS						
						Analyst: JLF
Barium	0.38	0.0020		mg/L	1	9/20/2012 1:08:55 PM
Cadmium	ND	0.0020		mg/L	1	9/20/2012 1:08:55 PM
Chromium	0.032	0.0060		mg/L	1	9/20/2012 1:08:55 PM
Copper	ND	0.0060		mg/L	1	9/20/2012 1:08:55 PM
Iron	0.15	0.020		mg/L	1	9/20/2012 1:08:55 PM
Lead	ND	0.0050		mg/L	1	9/20/2012 1:08:55 PM
Manganese	0.21	0.0020	*	mg/L	1	9/20/2012 1:08:55 PM
Selenium	ND	0.050		mg/L	1	9/20/2012 1:08:55 PM
Silver	ND	0.0050		mg/L	1	9/20/2012 1:08:55 PM
Zinc	0.014	0.010		mg/L	1	9/20/2012 1:08:55 PM
EPA METHOD 200.7: TOTAL METALS						
						Analyst: JLF
Barium	0.40	0.0020		mg/L	1	8/28/2012 5:44:24 PM
Cadmium	ND	0.0020		mg/L	1	8/28/2012 5:44:24 PM
Chromium	0.036	0.0060		mg/L	1	8/28/2012 5:44:24 PM
Copper	ND	0.0060		mg/L	1	8/28/2012 5:44:24 PM
Iron	0.26	0.020		mg/L	1	8/28/2012 5:44:24 PM
Lead	ND	0.0050		mg/L	1	8/28/2012 5:44:24 PM
Manganese	0.22	0.010	*	mg/L	5	8/28/2012 5:48:06 PM
Selenium	ND	0.050		mg/L	1	9/26/2012 4:34:29 PM
Silver	ND	0.0050		mg/L	1	8/28/2012 5:44:24 PM
Zinc	ND	0.010		mg/L	1	8/28/2012 5:44:24 PM
EPA 200.8: DISSOLVED METALS						
						Analyst: DBD
Arsenic	0.0020	0.0010		mg/L	1	8/31/2012 12:43:18 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

Analytical Report

Lab Order 1208A05

Date Reported: 10/2/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** West LDU**Project:** 3rd QTR 2012 Groundwater Sampling**Collection Date:** 8/21/2012 7:40:00 PM**Lab ID:** 1208A05-002**Matrix:** AQUEOUS**Received Date:** 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Uranium	ND	0.0010		mg/L	1	9/4/2012 3:33:32 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	ND	0.0025		mg/L	2.5	8/28/2012 12:58:42 PM
Uranium	ND	0.0025		mg/L	2.5	8/28/2012 12:58:42 PM
EPA METHOD 245.1: MERCURY						Analyst: TES
Mercury	ND	0.00020		mg/L	1	8/30/2012 4:39:13 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 1208A05

Date Reported: 10/2/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Oil Sump LDU

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/21/2012 7:20:00 PM

Lab ID: 1208A05-003

Matrix: AQUEOUS

Received Date: 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	8.8	1.0		mg/L	1	8/23/2012 7:28:52 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/23/2012 7:28:52 PM
Surr: DNOP	136	79.5-166		%REC	1	8/23/2012 7:28:52 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	28	10		mg/L	200	8/25/2012 12:23:45 AM
Surr: BFB	96.5	69.8-119		%REC	200	8/25/2012 12:23:45 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	500		µg/L	200	8/25/2012 12:23:45 AM
Benzene	1800	200		µg/L	200	8/25/2012 12:23:45 AM
Toluene	6000	200		µg/L	200	8/25/2012 12:23:45 AM
Ethylbenzene	590	200		µg/L	200	8/25/2012 12:23:45 AM
Xylenes, Total	5500	400		µg/L	200	8/25/2012 12:23:45 AM
1,2,4-Trimethylbenzene	850	200		µg/L	200	8/25/2012 12:23:45 AM
1,3,5-Trimethylbenzene	270	200		µg/L	200	8/25/2012 12:23:45 AM
Surr: 4-Bromofluorobenzene	106	55-140		%REC	200	8/25/2012 12:23:45 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: JLF
Barium	0.40	0.0020		mg/L	1	9/20/2012 1:16:25 PM
Cadmium	ND	0.0020		mg/L	1	9/20/2012 1:16:25 PM
Chromium	0.061	0.0060		mg/L	1	9/20/2012 1:16:25 PM
Copper	ND	0.0060		mg/L	1	9/20/2012 1:16:25 PM
Iron	0.19	0.020		mg/L	1	9/20/2012 1:16:25 PM
Lead	ND	0.0050		mg/L	1	9/20/2012 1:16:25 PM
Manganese	1.1	0.010	*	mg/L	5	9/20/2012 1:20:16 PM
Selenium	ND	0.050		mg/L	1	9/20/2012 1:16:25 PM
Silver	ND	0.0050		mg/L	1	9/20/2012 1:16:25 PM
Zinc	0.015	0.010		mg/L	1	9/20/2012 1:16:25 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.45	0.0020		mg/L	1	8/28/2012 5:51:42 PM
Cadmium	ND	0.0020		mg/L	1	8/28/2012 5:51:42 PM
Chromium	0.069	0.0060		mg/L	1	8/28/2012 5:51:42 PM
Copper	ND	0.0060		mg/L	1	8/28/2012 5:51:42 PM
Iron	0.86	0.020	*	mg/L	1	8/28/2012 5:51:42 PM
Lead	ND	0.0050		mg/L	1	8/28/2012 5:51:42 PM
Manganese	1.1	0.010	*	mg/L	5	8/28/2012 5:54:59 PM
Selenium	ND	0.050		mg/L	1	9/26/2012 4:42:03 PM
Silver	ND	0.0050		mg/L	1	8/28/2012 5:51:42 PM
Zinc	0.055	0.010		mg/L	1	8/28/2012 5:51:42 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.011	0.0010	*	mg/L	1	8/31/2012 12:47:14 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

Analytical Report

Lab Order 1208A05

Date Reported: 10/2/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** Oil Sump LDU**Project:** 3rd QTR 2012 Groundwater Sampling**Collection Date:** 8/21/2012 7:20:00 PM**Lab ID:** 1208A05-003**Matrix:** AQUEOUS**Received Date:** 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Uranium	ND	0.0010		mg/L	1	9/4/2012 3:37:28 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.011	0.0025	*	mg/L	2.5	8/30/2012 2:41:40 PM
Uranium	ND	0.0025		mg/L	2.5	8/30/2012 2:41:40 PM
EPA METHOD 245.1: MERCURY						Analyst: TES
Mercury	ND	0.00020		mg/L	1	8/30/2012 4:41:02 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

Analytical Report

Lab Order 1208A05

Date Reported: 10/2/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** Field Blank**Project:** 3rd QTR 2012 Groundwater Sampling**Collection Date:** 8/21/2012 7:45:00 PM**Lab ID:** 1208A05-004**Matrix:** AQUEOUS**Received Date:** 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	8/25/2012 1:24:17 AM
Benzene	ND	1.0		µg/L	1	8/25/2012 1:24:17 AM
Toluene	ND	1.0		µg/L	1	8/25/2012 1:24:17 AM
Ethylbenzene	ND	1.0		µg/L	1	8/25/2012 1:24:17 AM
Xylenes, Total	ND	2.0		µg/L	1	8/25/2012 1:24:17 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 1:24:17 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 1:24:17 AM
Surr: 4-Bromofluorobenzene	101	55-140		%REC	1	8/25/2012 1:24:17 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

Analytical Report

Lab Order 1208A05

Date Reported: 10/2/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** Trip Blank**Project:** 3rd QTR 2012 Groundwater Sampling**Collection Date:****Lab ID:** 1208A05-005**Matrix:** AQUEOUS**Received Date:** 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	8/25/2012 1:54:25 AM
Benzene	ND	1.0		µg/L	1	8/25/2012 1:54:25 AM
Toluene	ND	1.0		µg/L	1	8/25/2012 1:54:25 AM
Ethylbenzene	ND	1.0		µg/L	1	8/25/2012 1:54:25 AM
Xylenes, Total	ND	2.0		µg/L	1	8/25/2012 1:54:25 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 1:54:25 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 1:54:25 AM
Surr: 4-Bromofluorobenzene	110	55-140		%REC	1	8/25/2012 1:54:25 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208A05

02-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3474	SampType:	MBLK	TestCode:	EPA Method 200.7: Metals					
Client ID:	PBW	Batch ID:	3474	RunNo:	5114					
Prep Date:	8/24/2012	Analysis Date:	8/27/2012	SeqNo:	145375	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								
Selenium	ND	0.050								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-3474	SampType:	LCS	TestCode:	EPA Method 200.7: Metals					
Client ID:	LCSW	Batch ID:	3474	RunNo:	5114					
Prep Date:	8/24/2012	Analysis Date:	8/27/2012	SeqNo:	145376	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	0.52	0.0060	0.5000	0	103	85	115			
Copper	0.53	0.0060	0.5000	0	107	85	115			
Iron	0.48	0.020	0.5000	0	96.3	85	115			
Lead	0.52	0.0050	0.5000	0	104	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Selenium	0.51	0.050	0.5000	0	101	85	115			
Silver	0.11	0.0050	0.1000	0	105	85	115			
Zinc	0.50	0.010	0.5000	0	99.1	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Metals					
Client ID:	PBW	Batch ID:	R5345	RunNo:	5345					
Prep Date:		Analysis Date:	9/6/2012	SeqNo:	152122	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:	R5345	RunNo:	5345					
Prep Date:		Analysis Date:	9/6/2012	SeqNo:	152123	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	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 |
| P Sample pH greater than 2 | R RPD outside accepted recovery limits |

OC SUMMARY REPORT

Full Environmental Analysis Laboratory, Inc.

WO#: 1208A05

02-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Metals					
Client ID:	PBW	Batch ID:	R5654	RunNo:	5654					
Prep Date:		Analysis Date:	9/20/2012	SeqNo:	161960	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								
Selenium	ND	0.050								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Metals					
Client ID:	LCSW	Batch ID:	R5654	RunNo:	5654					
Prep Date:		Analysis Date:	9/20/2012	SeqNo:	161961	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	103	85	115			
Chromium	0.48	0.0060	0.5000	0	95.0	85	115			
Copper	0.50	0.0060	0.5000	0	99.9	85	115			
Iron	0.51	0.020	0.5000	0	101	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Manganese	0.50	0.0020	0.5000	0	99.8	85	115			
Selenium	0.48	0.050	0.5000	0	95.1	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.47	0.010	0.5000	0	94.1	85	115			

Sample ID	1209674-003BMS	SampType:	MS	TestCode:	EPA Method 200.7: Metals					
Client ID:	BatchQC	Batch ID:	R5654	RunNo:	5654					
Prep Date:		Analysis Date:	9/20/2012	SeqNo:	161972	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Iron	0.50	0.020	0.5000	0	100	70	130			
Manganese	0.50	0.0020	0.5000	0.0007300	99.7	70	130			

Sample ID	1209674-003BMSD			SampType:	MSD		TestCode:	EPA Method 200.7: Metals			
Client ID:	BatchQC		Batch ID:	R5654		RunNo:	5654				
Prep Date:			Analysis Date:	9/20/2012		SeqNo:	161973		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	103	70	130	2.16	20	
Manganese	0.51	0.0020	0.5000	0.0007300	101	70	130	1.69	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208A05

02-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID MB	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PBW	Batch ID: R5288		RunNo: 5288							
Prep Date:	Analysis Date: 9/4/2012		SeqNo: 150525		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: R5288		RunNo: 5288							
Prep Date:	Analysis Date: 9/4/2012		SeqNo: 150526		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.4	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.1	85	115			
Chromium	0.48	0.0060	0.5000	0	96.7	85	115			
Copper	0.50	0.0060	0.5000	0	99.5	85	115			
Iron	0.49	0.020	0.5000	0	97.3	85	115			
Lead	0.50	0.0050	0.5000	0	99.1	85	115			
Manganese	0.48	0.0020	0.5000	0	95.5	85	115			
Zinc	0.47	0.010	0.5000	0	94.4	85	115			

Sample ID 1208A45-006CMS	SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: R5288		RunNo: 5288							
Prep Date:	Analysis Date: 9/4/2012		SeqNo: 150572		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.50	0.020	0.5000	0.003490	99.9	70	130			

Sample ID 1208A45-006CMSD	SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: R5288		RunNo: 5288							
Prep Date:	Analysis Date: 9/4/2012		SeqNo: 150573		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.49	0.020	0.5000	0.003490	97.2	70	130	2.73	20	

Sample ID 1208776-001DMS	SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: R5345		RunNo: 5345							
Prep Date:	Analysis Date: 9/6/2012		SeqNo: 152201		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

- 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

QC SUMMARY REPORT

Ill Environmental Analysis Laboratory, Inc.

WO#: 1208A05

02-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208776-001DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5345	RunNo:	5345					
Prep Date:		Analysis Date:	9/6/2012	SeqNo:	152201	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.077	0.0050	0.1000	0	76.5	70	130			

Sample ID	1208776-001DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5345	RunNo:	5345					
Prep Date:		Analysis Date:	9/6/2012	SeqNo:	152202	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.080	0.0050	0.1000	0	80.4	70	130	4.92	20	

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R5345	RunNo:	5345					
Prep Date:		Analysis Date:	9/6/2012	SeqNo:	152218	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:	R5345	RunNo:	5345					
Prep Date:		Analysis Date:	9/6/2012	SeqNo:	152219	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	105	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	155926	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.050								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	155927	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.50	0.050	0.5000	0	99.8	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156417	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.050								

Legend:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208A05

02-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156418	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.48	0.050	0.5000	0	95.2	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R5654	RunNo:	5654					
Prep Date:		Analysis Date:	9/20/2012	SeqNo:	161891	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								
Selenium	ND	0.050								
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:	R5654	RunNo:	5654					
Prep Date:		Analysis Date:	9/20/2012	SeqNo:	161892	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	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.50	0.0060	0.5000	0	99.4	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Lead	0.51	0.0050	0.5000	0	102	85	115			
Manganese	0.50	0.0020	0.5000	0	100	85	115			
Selenium	0.51	0.050	0.5000	0	101	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Zinc	0.51	0.010	0.5000	0.0008400	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

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

QC SUMMARY REPORT

Ill Environmental Analysis Laboratory, Inc.

WO#: 1208A05

02-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3474	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	3474	RunNo:	5114					
Prep Date:	8/24/2012	Analysis Date:	8/27/2012	SeqNo:	145152	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								
Selenium	ND	0.050								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-3474	SampType:	LCS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	LCSW	Batch ID:	3474	RunNo:	5114					
Prep Date:	8/24/2012	Analysis Date:	8/27/2012	SeqNo:	145153	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

	0.52	0.0020	0.5000	0	104	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	0.53	0.0060	0.5000	0	107	85	115			
Iron	0.48	0.020	0.5000	0	96.3	85	115			
Lead	0.52	0.0050	0.5000	0	104	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Selenium	0.51	0.050	0.5000	0	101	85	115			
Silver	0.11	0.0050	0.1000	0	105	85	115			
Zinc	0.50	0.010	0.5000	0	99.1	85	115			

Sample ID	1208A45-004BMS	SampType:	MS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	3474	RunNo:	5156					
Prep Date:	8/24/2012	Analysis Date:	8/28/2012	SeqNo:	146641	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	70	130			
----------	------	--------	--------	---	-----	----	-----	--	--	--

Sample ID	1208A45-004BMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	3474	RunNo:	5156					
Prep Date:	8/24/2012	Analysis Date:	8/28/2012	SeqNo:	146642	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	99.3	70	130	4.50	20	
----------	------	--------	--------	---	------	----	-----	------	----	--

Legend:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208A05

02-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3474	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	3474	RunNo:	5777					
Prep Date:	8/24/2012	Analysis Date:	9/26/2012	SeqNo:	166346	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.050								

Sample ID	LCS-3474	SampType:	LCS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	LCSW	Batch ID:	3474	RunNo:	5777					
Prep Date:	8/24/2012	Analysis Date:	9/26/2012	SeqNo:	166347	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.52	0.050	0.5000	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

- 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

OC SUMMARY REPORT

Ill Environmental Analysis Laboratory, Inc.

WO#: 1208A05

02-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3474	SampType:	MBLK	TestCode:	EPA 200.8: Metals					
Client ID:	PBW	Batch ID:	3474	RunNo:	5162					
Prep Date:	8/24/2012	Analysis Date:	8/28/2012	SeqNo:	146691	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Uranium	ND	0.0025								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Metals					
Client ID:	LCSW	Batch ID:	R5246	RunNo:	5246					
Prep Date:		Analysis Date:	8/31/2012	SeqNo:	149394	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			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Metals					
Client ID:	PBW	Batch ID:	R5246	RunNo:	5246					
Prep Date:		Analysis Date:	8/31/2012	SeqNo:	149397	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: Metals					
Client ID:	LCSW	Batch ID:	R5291	RunNo:	5291					
Prep Date:		Analysis Date:	9/4/2012	SeqNo:	150645	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	LCS	SampType:	LCS	TestCode:	EPA 200.8: Metals					
Client ID:	LCSW	Batch ID:	R5291	RunNo:	5291					
Prep Date:		Analysis Date:	9/4/2012	SeqNo:	150646	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Metals					
Client ID:	PBW	Batch ID:	R5291	RunNo:	5291					
Prep Date:		Analysis Date:	9/4/2012	SeqNo:	150650	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: Metals					
Client ID:	PBW	Batch ID:	R5291	RunNo:	5291					
Prep Date:		Analysis Date:	9/4/2012	SeqNo:	150651	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Legend:

- | | |
|--|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | 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 |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208A05

02-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Metals						
Client ID:	PBW	Batch ID:	R5291	RunNo:	5291						
Prep Date:		Analysis Date:	9/4/2012	SeqNo:	150651	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

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

OC SUMMARY REPORT

Ill Environmental Analysis Laboratory, Inc.

WO#: 1208A05

02-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208A93-001BMS		SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R5246		RunNo:	5246				
Prep Date:			Analysis Date:	8/31/2012		SeqNo:	149411		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.025	0.0010	0.02500	0.0003118	98.7	70	130				

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R5246	RunNo:	5246					
Prep Date:		Analysis Date:	8/31/2012	SeqNo:	149413	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			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R5246	RunNo:	5246					
Prep Date:		Analysis Date:	8/31/2012	SeqNo:	149415	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID	1208655-003EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5291	RunNo:	5291					
Prep Date:		Analysis Date:	9/4/2012	SeqNo:	150661	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.036	0.0010	0.02500	0.008655	109	70	130			

Sample ID	1208782-007FMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5291	RunNo:	5291					
Prep Date:		Analysis Date:	9/4/2012	SeqNo:	150672	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.028	0.0010	0.02500	0.003860	98.3	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R5291	RunNo:	5291					
Prep Date:		Analysis Date:	9/4/2012	SeqNo:	150687	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	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R5291	RunNo:	5291					
Prep Date:		Analysis Date:	9/4/2012	SeqNo:	150688	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			

Notes:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208A05

02-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals						
Client ID:	PBW	Batch ID:	R5291	RunNo:	5291						
Prep Date:		Analysis Date:	9/4/2012	SeqNo:	150689	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:	R5291	RunNo:	5291						
Prep Date:		Analysis Date:	9/4/2012	SeqNo:	150690	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

- 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

OC SUMMARY REPORT

Full Environmental Analysis Laboratory, Inc.

WO#: 1208A05

02-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3474	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	3474	RunNo:	5162					
Prep Date:	8/24/2012	Analysis Date:	8/28/2012	SeqNo:	146725	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Uranium	ND	0.0025								

Notes:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208A05

02-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3531	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	3531	RunNo:	5221					
Prep Date:	8/29/2012	Analysis Date:	8/30/2012	SeqNo:	148381	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-3531		SampType:	LCS		TestCode:	EPA Method 245.1: Mercury				
Client ID:	LCSW		Batch ID:	3531		RunNo:	5221				
Prep Date:	8/29/2012		Analysis Date:	8/30/2012		SeqNo:	148382		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	1208654-001BMS			SampType:	MS		TestCode:	EPA Method 245.1: Mercury			
Client ID:	BatchQC		Batch ID:		3531		RunNo:	5221			
Prep Date:	8/29/2012		Analysis Date:		8/30/2012		SeqNo:	148401		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	1208654-001BMSD			SampType:	MSD		TestCode:	EPA Method 245.1: Mercury			
Client ID:	BatchQC		Batch ID:		3531		RunNo:	5221			
Prep Date:	8/29/2012		Analysis Date:		8/30/2012		SeqNo:	148402		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	0.553	20		

Qualifiers:

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

- 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

OC SUMMARY REPORT

Full Environmental Analysis Laboratory, Inc.

WO#: 1208A05

02-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3460	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	PBW	Batch ID:	3460	RunNo:	5044					
Prep Date:	8/23/2012	Analysis Date:	8/23/2012	SeqNo:	143373	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		126	79.5	166			

Sample ID	LCS-3460	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	LCSW	Batch ID:	3460	RunNo:	5044					
Prep Date:	8/23/2012	Analysis Date:	8/23/2012	SeqNo:	143388	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	84.0	74	157			
Surr: DNOP	0.51		0.5000		103	79.5	166			

Sample ID	LCSD-3460	SampType:	LCSD	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	LCSS02	Batch ID:	3460	RunNo:	5044					
Prep Date:	8/23/2012	Analysis Date:	8/23/2012	SeqNo:	143389	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.1	1.0	5.000	0	82.7	74	157	1.52	23	
Surr: DNOP	0.51		0.5000		102	79.5	166	0	0	

Notes:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208A05

02-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBW	Batch ID:	R5110	RunNo:	5110					
Prep Date:		Analysis Date:	8/24/2012	SeqNo:	145076	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	20		20.00		99.2	69.8	119			

Sample ID	2.5UG GRO LCSB	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSW	Batch ID:	R5110	RunNo:	5110					
Prep Date:		Analysis Date:	8/24/2012	SeqNo:	145077	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.44	0.050	0.5000	0	87.8	75.9	119			
Surr: BFB	18		20.00		88.2	69.8	119			

Sample ID	1208990-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R5110	RunNo:	5110					
Prep Date:		Analysis Date:	8/24/2012	SeqNo:	145080	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.5	0.50	5.000	0.1420	86.8	63.5	131			
Surr: BFB	210		200.0		106	69.8	119			

Sample ID	1208990-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R5110	RunNo:	5110					
Prep Date:		Analysis Date:	8/24/2012	SeqNo:	145081	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.5	0.50	5.000	0.1420	86.9	63.5	131	0.134	16.7	
Surr: BFB	210		200.0		105	69.8	119	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

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

OC SUMMARY REPORT

Full Environmental Analysis Laboratory, Inc.

WO#: 1208A05

02-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	5ML RB		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBW		Batch ID:	R5110		RunNo:	5110				
Prep Date:			Analysis Date:	8/24/2012		SeqNo:	145099		Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	22		20.00		108	55	140			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	R5110	RunNo:	5110					
Prep Date:		Analysis Date:	8/24/2012	SeqNo:	145100	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0	96.5	66.9	136			
Pne	22	1.0	20.00	0	111	80	120			
ne	22	1.0	20.00	0	112	80	120			
Ethylbenzene	23	1.0	20.00	0	113	80	120			
Xylenes, Total	68	2.0	60.00	0	113	80	120			
1,2,4-Trimethylbenzene	22	1.0	20.00	0	110	74.3	117			
1,3,5-Trimethylbenzene	22	1.0	20.00	0	112	75.8	117			
Surr: 4-Bromofluorobenzene	23		20.00		114	55	140			

Sample ID	1208A05-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	East LDU	Batch ID:	R5110	RunNo:	5110					
Prep Date:		Analysis Date:	8/24/2012	SeqNo:	145103	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	95.0	45.1	137			
Benzene	3400	100	2000	1151	110	74.1	124			
Toluene	2500	100	2000	327.2	111	75.2	124			
Ethylbenzene	2700	100	2000	457.6	111	69	125			
Xylenes, Total	12000	200	6000	5715	109	73.1	126			
1,2,4-Trimethylbenzene	3000	100	2000	839.4	108	63.1	121			
1,3,5-Trimethylbenzene	2500	100	2000	277.6	110	60	133			
Surr: 4-Bromofluorobenzene	1900		2000		97.5	55	140			

Sample ID	1208A05-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	East LDU		Batch ID:	R5110		RunNo:	5110				
Prep Date:			Analysis Date:	8/24/2012		SeqNo:	145104		Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Notes:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208A05

02-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID		1208A05-001AMSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles				
Client ID:		East LDU		Batch ID: R5110		RunNo: 5110				
Prep Date:		Analysis Date: 8/24/2012		SeqNo: 145104		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	2000	250	2000	0	99.5	45.1	137	4.69	13.6	
Benzene	3300	100	2000	1151	109	74.1	124	0.677	11.2	
Toluene	2500	100	2000	327.2	110	75.2	124	0.852	11.9	
Ethylbenzene	2700	100	2000	457.6	111	69	125	0.702	13.5	
Xylenes, Total	12000	200	6000	5715	108	73.1	126	0.358	13	
1,2,4-Trimethylbenzene	3000	100	2000	839.4	107	63.1	121	0.615	14.7	
1,3,5-Trimethylbenzene	2500	100	2000	277.6	111	60	133	0.618	14	
Surr: 4-Bromofluorobenzene	2600		2000		128	55	140	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

- 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



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87106
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: 1208A05

Received by/date: _____

Logged By: Anne Thorne

8/22/2012 1:20:00 PM

Anne Thorne

Completed By: Anne Thorne

8/22/2012

Anne Thorne

Reviewed By: *IO 08/23/12*

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☒
10. Was preservative added to bottles? Yes ☒ No ☒ NA ☐
11. VOA vials have zero headspace? *0018-0085 - ADDED 1 mL HNO₃ 2032 - ADDED 0.4 mL HNO₃ FOR ACCEPTABLE pH*
Yes ☒ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☒ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
15. Is it clear what analyses were requested? Yes ☒ No ☐
16. 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)

17. 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:	_____		

18. Additional remarks:

19. Cooler Information

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



www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Client: Western Refining						
Mailing Address: Rt. 3 Box 7 Gallup, NM 87301						
Phone #: 505-722-3833 Email or Fax#: 505-722-0210						
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)						
Accreditation: ☐ NELAP ☐ Other ☐ EDD (Type) _____						
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
12/21/12	1930	GW	East LDU	6	HCL, HNO3	1208 AOS
12/21/12	1940	GW	West LDU	6		001
12/21/12	1920	GW	Oil Sump LDU	6		002
12/21/12	1945	W	Field Blank	3		003
12/21/12	-	W	Trip Blank	3		004
			At 8/22/12			005
Date: 12/21/12	Time: 0830	Relinquished by: [Signature]		Received by:		Date:
Date: 12/21/12	Time: 13:20	Relinquished by: [Signature]		Received by: [Signature]		Date: 08/22/12

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 03, 2012

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 3rd QTR 2012 Groundwater Sampling

OrderNo.: 1208B34

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 8/24/2012 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".

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1208B34

Date Reported: 10/3/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-1

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 10:50:00 AM

Lab ID: 1208B34-001

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	ND	0.50		mg/L	5	8/27/2012 6:46:04 PM
Chloride	380	10		mg/L	20	8/27/2012 6:58:29 PM
Bromide	3.8	0.50		mg/L	5	8/27/2012 6:46:04 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/27/2012 6:46:04 PM
Sulfate	ND	2.5		mg/L	5	8/27/2012 6:46:04 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/29/2012 4:50:22 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	3.6	0.010	*	mg/L	5	9/12/2012 2:44:44 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 2:41:34 PM
Calcium	210	5.0		mg/L	5	9/12/2012 2:44:44 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 2:41:34 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 2:41:34 PM
Iron	7.6	0.20	*	mg/L	10	9/12/2012 3:54:26 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 2:41:34 PM
Magnesium	39	1.0		mg/L	1	9/12/2012 2:41:34 PM
Manganese	3.6	0.010	*	mg/L	5	9/12/2012 2:44:44 PM
Potassium	1.3	1.0		mg/L	1	9/12/2012 2:41:34 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 2:41:34 PM
Sodium	250	5.0		mg/L	5	9/12/2012 2:44:44 PM
Zinc	0.021	0.010		mg/L	1	9/12/2012 2:41:34 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	3.7	0.010	*	mg/L	5	9/10/2012 9:00:08 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 8:57:22 AM
Chromium	ND	0.0060		mg/L	1	9/10/2012 8:57:22 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 8:57:22 AM
Iron	6.9	0.40	*	mg/L	20	9/11/2012 10:37:00 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 8:57:22 AM
Manganese	3.6	0.010	*	mg/L	5	9/10/2012 9:00:08 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 10:22:23 AM
Zinc	ND	0.010		mg/L	1	9/10/2012 8:57:22 AM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0090	0.0010		mg/L	1	9/6/2012 3:20:21 PM
Selenium	0.0062	0.0010		mg/L	1	9/6/2012 3:20:21 PM
Uranium	0.0041	0.0010		mg/L	1	9/6/2012 3:20:21 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.010	0.0025	*	mg/L	2.5	9/6/2012 6:02:31 PM
Selenium	0.0057	0.0025		mg/L	2.5	9/26/2012 10:48:39 AM
Uranium	0.0041	0.0025		mg/L	2.5	9/13/2012 1:35:50 PM
EPA METHOD 245.1: MERCURY						Analyst: JLF

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 1208B34

Date Reported: 10/3/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-1

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 10:50:00 AM

Lab ID: 1208B34-001

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: JLF
Mercury	ND	0.00020		mg/L	1	9/12/2012 9:52:58 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Acenaphthylene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Aniline	160	10		µg/L	1	8/31/2012 11:37:40 AM
Anthracene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Azobenzene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Benz(a)anthracene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Benzo(a)pyrene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Benzoic acid	ND	20		µg/L	1	8/31/2012 11:37:40 AM
Benzyl alcohol	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/31/2012 11:37:40 AM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Butyl benzyl phthalate	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Carbazole	ND	10		µg/L	1	8/31/2012 11:37:40 AM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/31/2012 11:37:40 AM
4-Chloroaniline	ND	10		µg/L	1	8/31/2012 11:37:40 AM
2-Chloronaphthalene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
2-Chlorophenol	ND	10		µg/L	1	8/31/2012 11:37:40 AM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Chrysene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Di-n-butyl phthalate	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Di-n-octyl phthalate	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Dibenzofuran	ND	10		µg/L	1	8/31/2012 11:37:40 AM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Diethyl phthalate	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Dimethyl phthalate	ND	10		µg/L	1	8/31/2012 11:37:40 AM
2,4-Dichlorophenol	ND	20		µg/L	1	8/31/2012 11:37:40 AM
2,4-Dimethylphenol	210	10		µg/L	1	8/31/2012 11:37:40 AM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/31/2012 11:37:40 AM
2,4-Dinitrophenol	ND	20		µg/L	1	8/31/2012 11:37:40 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

Analytical Report

Lab Order 1208B34

Date Reported: 10/3/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-1

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 10:50:00 AM

Lab ID: 1208B34-001

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Fluoranthene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Fluorene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Hexachlorobenzene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Hexachlorobutadiene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Hexachloroethane	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Isophorone	ND	10		µg/L	1	8/31/2012 11:37:40 AM
1-Methylnaphthalene	300	50		µg/L	5	8/31/2012 3:33:50 PM
2-Methylnaphthalene	610	50		µg/L	5	8/31/2012 3:33:50 PM
2-Methylphenol	240	50		µg/L	5	8/31/2012 3:33:50 PM
3+4-Methylphenol	160	50		µg/L	5	8/31/2012 3:33:50 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/31/2012 11:37:40 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/31/2012 11:37:40 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Naphthalene	890	50		µg/L	5	8/31/2012 3:33:50 PM
2-Nitroaniline	ND	10		µg/L	1	8/31/2012 11:37:40 AM
3-Nitroaniline	ND	10		µg/L	1	8/31/2012 11:37:40 AM
4-Nitroaniline	ND	20		µg/L	1	8/31/2012 11:37:40 AM
Nitrobenzene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
2-Nitrophenol	ND	10		µg/L	1	8/31/2012 11:37:40 AM
4-Nitrophenol	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Pentachlorophenol	ND	20		µg/L	1	8/31/2012 11:37:40 AM
Phenanthrene	20	10		µg/L	1	8/31/2012 11:37:40 AM
Phenol	110	10		µg/L	1	8/31/2012 11:37:40 AM
Pyrene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Pyridine	31	10		µg/L	1	8/31/2012 11:37:40 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/31/2012 11:37:40 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Surr: 2,4,6-Tribromophenol	91.6	44.2-126		%REC	1	8/31/2012 11:37:40 AM
Surr: 2-Fluorobiphenyl	86.8	37-114		%REC	1	8/31/2012 11:37:40 AM
Surr: 2-Fluorophenol	0	23.4-98	S	%REC	1	8/31/2012 11:37:40 AM
Surr: 4-Terphenyl-d14	73.4	41.3-116		%REC	1	8/31/2012 11:37:40 AM
Surr: Nitrobenzene-d5	50.4	39.5-118		%REC	1	8/31/2012 11:37:40 AM
Surr: Phenol-d5	58.9	20.9-95.9		%REC	1	8/31/2012 11:37:40 AM
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
Benzene	45000	1000		µg/L	1000	9/4/2012 7:08:27 PM
Toluene	82000	1000		µg/L	1000	9/4/2012 7:08:27 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 1208B34

Date Reported: 10/3/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-1

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 10:50:00 AM

Lab ID: 1208B34-001

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
Ethylbenzene	4900	1000		µg/L	1000	9/4/2012 7:08:27 PM
Methyl tert-butyl ether (MTBE)	3100	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,2,4-Trimethylbenzene	2800	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,3,5-Trimethylbenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,2-Dichloroethane (EDC)	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,2-Dibromoethane (EDB)	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Naphthalene	ND	2000		µg/L	1000	9/4/2012 7:08:27 PM
1-Methylnaphthalene	ND	4000		µg/L	1000	9/4/2012 7:08:27 PM
2-Methylnaphthalene	ND	4000		µg/L	1000	9/4/2012 7:08:27 PM
Acetone	ND	10000		µg/L	1000	9/4/2012 7:08:27 PM
Bromobenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Bromodichloromethane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Bromofom	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Bromomethane	ND	3000		µg/L	1000	9/4/2012 7:08:27 PM
2-Butanone	ND	10000		µg/L	1000	9/4/2012 7:08:27 PM
Carbon disulfide	ND	10000		µg/L	1000	9/4/2012 7:08:27 PM
Carbon Tetrachloride	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Chlorobenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Chloroethane	ND	2000		µg/L	1000	9/4/2012 7:08:27 PM
Chlorofom	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Chloromethane	ND	3000		µg/L	1000	9/4/2012 7:08:27 PM
2-Chlorotoluene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
4-Chlorotoluene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
cis-1,2-DCE	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
cis-1,3-Dichloropropene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,2-Dibromo-3-chloropropane	ND	2000		µg/L	1000	9/4/2012 7:08:27 PM
Dibromochloromethane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Dibromomethane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,2-Dichlorobenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,3-Dichlorobenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,4-Dichlorobenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Dichlorodifluoromethane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,1-Dichloroethane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,1-Dichloroethene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,2-Dichloropropane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,3-Dichloropropane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
2,2-Dichloropropane	ND	2000		µg/L	1000	9/4/2012 7:08:27 PM
1,1-Dichloropropene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Hexachlorobutadiene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
2-Hexanone	ND	10000		µg/L	1000	9/4/2012 7:08:27 PM
Isopropylbenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
4-Isopropyltoluene	ND	1000		µg/L	1000	9/4/2012 7:08:27 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

Analytical Report

Lab Order 1208B34

Date Reported: 10/3/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-1

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 10:50:00 AM

Lab ID: 1208B34-001

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
4-Methyl-2-pentanone	ND	10000		µg/L	1000	9/4/2012 7:08:27 PM
Methylene Chloride	ND	3000		µg/L	1000	9/4/2012 7:08:27 PM
n-Butylbenzene	ND	3000		µg/L	1000	9/4/2012 7:08:27 PM
n-Propylbenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
sec-Butylbenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Styrene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
tert-Butylbenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,1,1,2-Tetrachloroethane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,1,2,2-Tetrachloroethane	ND	2000		µg/L	1000	9/4/2012 7:08:27 PM
Tetrachloroethene (PCE)	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
trans-1,2-DCE	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
trans-1,3-Dichloropropene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,2,3-Trichlorobenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,2,4-Trichlorobenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,1,1-Trichloroethane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,1,2-Trichloroethane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Trichloroethene (TCE)	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Trichlorofluoromethane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,2,3-Trichloropropane	ND	2000		µg/L	1000	9/4/2012 7:08:27 PM
Vinyl chloride	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Xylenes, Total	31000	1500		µg/L	1000	9/4/2012 7:08:27 PM
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1000	9/4/2012 7:08:27 PM
Surr: 4-Bromofluorobenzene	99.7	70-130		%REC	1000	9/4/2012 7:08:27 PM
Surr: Dibromofluoromethane	105	70-130		%REC	1000	9/4/2012 7:08:27 PM
Surr: Toluene-d8	96.2	70-130		%REC	1000	9/4/2012 7:08:27 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 1208B34

Date Reported: 10/3/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-2

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 8:30:00 AM

Lab ID: 1208B34-002

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	ND	0.50		mg/L	5	8/27/2012 7:10:53 PM
Chloride	90	2.5		mg/L	5	8/27/2012 7:10:53 PM
Bromide	1.7	0.50		mg/L	5	8/27/2012 7:10:53 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/27/2012 7:10:53 PM
Sulfate	ND	2.5		mg/L	5	8/27/2012 7:10:53 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/29/2012 5:02:46 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	3.5	0.010	*	mg/L	5	9/12/2012 2:53:30 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 2:48:39 PM
Calcium	130	5.0		mg/L	5	9/12/2012 2:53:30 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 2:48:39 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 2:48:39 PM
Iron	10	0.40	*	mg/L	20	9/12/2012 3:59:53 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 2:48:39 PM
Magnesium	25	1.0		mg/L	1	9/12/2012 2:48:39 PM
Manganese	2.1	0.010	*	mg/L	5	9/12/2012 2:53:30 PM
Potassium	ND	1.0		mg/L	1	9/12/2012 2:48:39 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 2:48:39 PM
Sodium	200	5.0		mg/L	5	9/12/2012 2:53:30 PM
Zinc	0.023	0.010		mg/L	1	9/12/2012 2:48:39 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	3.7	0.010	*	mg/L	5	9/10/2012 9:07:29 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 9:04:41 AM
Chromium	ND	0.0060		mg/L	1	9/10/2012 9:04:41 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 9:04:41 AM
Iron	10	0.40	*	mg/L	20	9/11/2012 10:45:17 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 9:04:41 AM
Manganese	2.1	0.010	*	mg/L	5	9/10/2012 9:07:29 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 10:42:16 AM
Zinc	ND	0.010		mg/L	1	9/10/2012 9:04:41 AM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0073	0.0010		mg/L	1	9/6/2012 3:24:17 PM
Selenium	0.0046	0.0010		mg/L	1	9/6/2012 3:24:17 PM
Uranium	ND	0.0010		mg/L	1	9/6/2012 3:24:17 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0069	0.0025		mg/L	2.5	9/6/2012 6:08:11 PM
Selenium	0.0044	0.0025		mg/L	2.5	9/26/2012 10:52:35 AM
Uranium	ND	0.0025		mg/L	2.5	9/13/2012 1:37:42 PM
EPA METHOD 245.1: MERCURY						Analyst: JLF

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

Analytical Report

Lab Order 1208B34

Date Reported: 10/3/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-2

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 8:30:00 AM

Lab ID: 1208B34-002

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: JLF
Mercury	ND	0.00020		mg/L	1	9/12/2012 9:54:43 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Acenaphthylene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Aniline	210	10		µg/L	1	8/31/2012 12:07:02 PM
Anthracene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Azobenzene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Benz(a)anthracene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Benzoic acid	ND	20		µg/L	1	8/31/2012 12:07:02 PM
Benzyl alcohol	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/31/2012 12:07:02 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Carbazole	ND	10		µg/L	1	8/31/2012 12:07:02 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/31/2012 12:07:02 PM
4-Chloroaniline	ND	10		µg/L	1	8/31/2012 12:07:02 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
2-Chlorophenol	ND	10		µg/L	1	8/31/2012 12:07:02 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Chrysene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Dibenzofuran	ND	10		µg/L	1	8/31/2012 12:07:02 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Diethyl phthalate	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Dimethyl phthalate	ND	10		µg/L	1	8/31/2012 12:07:02 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/31/2012 12:07:02 PM
2,4-Dimethylphenol	220	10		µg/L	1	8/31/2012 12:07:02 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/31/2012 12:07:02 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/31/2012 12:07:02 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 1208B34

Date Reported: 10/3/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-2

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 8:30:00 AM

Lab ID: 1208B34-002

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Fluoranthene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Fluorene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Hexachlorobenzene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Hexachloroethane	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Isophorone	ND	10		µg/L	1	8/31/2012 12:07:02 PM
1-Methylnaphthalene	43	10		µg/L	1	8/31/2012 12:07:02 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
2-Methylphenol	28	10		µg/L	1	8/31/2012 12:07:02 PM
3+4-Methylphenol	25	10		µg/L	1	8/31/2012 12:07:02 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/31/2012 12:07:02 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/31/2012 12:07:02 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Naphthalene	43	10		µg/L	1	8/31/2012 12:07:02 PM
2-Nitroaniline	ND	10		µg/L	1	8/31/2012 12:07:02 PM
3-Nitroaniline	ND	10		µg/L	1	8/31/2012 12:07:02 PM
4-Nitroaniline	ND	20		µg/L	1	8/31/2012 12:07:02 PM
Nitrobenzene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
2-Nitrophenol	ND	10		µg/L	1	8/31/2012 12:07:02 PM
4-Nitrophenol	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Pentachlorophenol	ND	20		µg/L	1	8/31/2012 12:07:02 PM
Phenanthrene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Phenol	91	10		µg/L	1	8/31/2012 12:07:02 PM
Pyrene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Pyridine	ND	10		µg/L	1	8/31/2012 12:07:02 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/31/2012 12:07:02 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Surr: 2,4,6-Tribromophenol	71.4	44.2-126		%REC	1	8/31/2012 12:07:02 PM
Surr: 2-Fluorobiphenyl	81.2	37-114		%REC	1	8/31/2012 12:07:02 PM
Surr: 2-Fluorophenol	18.4	23.4-98	S	%REC	1	8/31/2012 12:07:02 PM
Surr: 4-Terphenyl-d14	70.7	41.3-116		%REC	1	8/31/2012 12:07:02 PM
Surr: Nitrobenzene-d5	67.3	39.5-118		%REC	1	8/31/2012 12:07:02 PM
Surr: Phenol-d5	44.8	20.9-95.9		%REC	1	8/31/2012 12:07:02 PM
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
Benzene	42000	1000		µg/L	1000	9/4/2012 7:37:55 PM
Toluene	2600	100		µg/L	100	9/4/2012 8:07:21 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

Analytical Report

Lab Order 1208B34

Date Reported: 10/3/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-2

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 8:30:00 AM

Lab ID: 1208B34-002

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
Ethylbenzene	590	100		µg/L	100	9/4/2012 8:07:21 PM
Methyl tert-butyl ether (MTBE)	3300	100		µg/L	100	9/4/2012 8:07:21 PM
1,2,4-Trimethylbenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,3,5-Trimethylbenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,2-Dichloroethane (EDC)	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,2-Dibromoethane (EDB)	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Naphthalene	ND	200		µg/L	100	9/4/2012 8:07:21 PM
1-Methylnaphthalene	ND	400		µg/L	100	9/4/2012 8:07:21 PM
2-Methylnaphthalene	ND	400		µg/L	100	9/4/2012 8:07:21 PM
Acetone	ND	1000		µg/L	100	9/4/2012 8:07:21 PM
Bromobenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Bromodichloromethane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Bromoform	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Bromomethane	ND	300		µg/L	100	9/4/2012 8:07:21 PM
2-Butanone	ND	1000		µg/L	100	9/4/2012 8:07:21 PM
Carbon disulfide	ND	1000		µg/L	100	9/4/2012 8:07:21 PM
Carbon Tetrachloride	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Chlorobenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Chloroethane	ND	200		µg/L	100	9/4/2012 8:07:21 PM
Chloroform	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Chloromethane	ND	300		µg/L	100	9/4/2012 8:07:21 PM
2-Chlorotoluene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
4-Chlorotoluene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
cis-1,2-DCE	ND	100		µg/L	100	9/4/2012 8:07:21 PM
cis-1,3-Dichloropropene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,2-Dibromo-3-chloropropane	ND	200		µg/L	100	9/4/2012 8:07:21 PM
Dibromochloromethane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Dibromomethane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,2-Dichlorobenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,3-Dichlorobenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,4-Dichlorobenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Dichlorodifluoromethane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,1-Dichloroethane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,1-Dichloroethene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,2-Dichloropropane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,3-Dichloropropane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
2,2-Dichloropropane	ND	200		µg/L	100	9/4/2012 8:07:21 PM
1,1-Dichloropropene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Hexachlorobutadiene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
2-Hexanone	ND	1000		µg/L	100	9/4/2012 8:07:21 PM
Isopropylbenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
4-Isopropyltoluene	ND	100		µg/L	100	9/4/2012 8:07:21 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 1208B34

Date Reported: 10/3/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-2

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012 8:30:00 AM

Lab ID: 1208B34-002

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
4-Methyl-2-pentanone	ND	1000		µg/L	100	9/4/2012 8:07:21 PM
Methylene Chloride	ND	300		µg/L	100	9/4/2012 8:07:21 PM
n-Butylbenzene	ND	300		µg/L	100	9/4/2012 8:07:21 PM
n-Propylbenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
sec-Butylbenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Styrene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
tert-Butylbenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,1,1,2-Tetrachloroethane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,1,2,2-Tetrachloroethane	ND	200		µg/L	100	9/4/2012 8:07:21 PM
Tetrachloroethene (PCE)	ND	100		µg/L	100	9/4/2012 8:07:21 PM
trans-1,2-DCE	ND	100		µg/L	100	9/4/2012 8:07:21 PM
trans-1,3-Dichloropropene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,2,3-Trichlorobenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,2,4-Trichlorobenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,1,1-Trichloroethane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,1,2-Trichloroethane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Trichloroethene (TCE)	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Trichlorofluoromethane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,2,3-Trichloropropane	ND	200		µg/L	100	9/4/2012 8:07:21 PM
Vinyl chloride	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Xylenes, Total	1700	150		µg/L	100	9/4/2012 8:07:21 PM
Surr: 1,2-Dichloroethane-d4	95.3	70-130		%REC	100	9/4/2012 8:07:21 PM
Surr: 4-Bromofluorobenzene	90.9	70-130		%REC	100	9/4/2012 8:07:21 PM
Surr: Dibromofluoromethane	106	70-130		%REC	100	9/4/2012 8:07:21 PM
Surr: Toluene-d8	94.6	70-130		%REC	100	9/4/2012 8:07:21 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

Analytical Report

Lab Order 1208B34

Date Reported: 10/3/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-5

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 10:00:00 AM

Lab ID: 1208B34-003

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	0.80	0.50		mg/L	5	8/27/2012 7:35:42 PM
Chloride	11	2.5		mg/L	5	8/27/2012 7:35:42 PM
Bromide	ND	0.50		mg/L	5	8/27/2012 7:35:42 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/27/2012 7:35:42 PM
Sulfate	ND	2.5		mg/L	5	8/27/2012 7:35:42 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/29/2012 5:15:11 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	2.7	0.010	*	mg/L	5	9/12/2012 2:59:48 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 2:56:44 PM
Calcium	52	1.0		mg/L	1	9/12/2012 2:56:44 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 2:56:44 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 2:56:44 PM
Iron	3.7	0.10	*	mg/L	5	9/12/2012 2:59:48 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 2:56:44 PM
Magnesium	9.9	1.0		mg/L	1	9/12/2012 2:56:44 PM
Manganese	0.69	0.0020	*	mg/L	1	9/12/2012 2:56:44 PM
Potassium	ND	1.0		mg/L	1	9/12/2012 2:56:44 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 2:56:44 PM
Sodium	190	5.0		mg/L	5	9/12/2012 2:59:48 PM
Zinc	0.017	0.010		mg/L	1	9/12/2012 2:56:44 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	3.1	0.010	*	mg/L	5	9/10/2012 9:13:03 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 9:10:18 AM
Chromium	ND	0.0060		mg/L	1	9/10/2012 9:10:18 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 9:10:18 AM
Iron	5.0	0.40	*	mg/L	20	9/11/2012 10:51:40 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 9:10:18 AM
Manganese	0.76	0.0020	*	mg/L	1	9/10/2012 9:10:18 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 10:48:46 AM
Zinc	ND	0.010		mg/L	1	9/10/2012 9:10:18 AM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0022	0.0010		mg/L	1	9/6/2012 3:28:13 PM
Selenium	0.0010	0.0010		mg/L	1	9/6/2012 3:28:13 PM
Uranium	ND	0.0010		mg/L	1	9/6/2012 3:28:13 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0033	0.0025		mg/L	2.5	9/6/2012 6:10:03 PM
Selenium	ND	0.0025		mg/L	2.5	9/6/2012 6:10:03 PM
Uranium	ND	0.0025		mg/L	2.5	9/13/2012 1:43:22 PM
EPA METHOD 245.1: MERCURY						Analyst: JLF

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 1208B34

Date Reported: 10/3/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-5

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 10:00:00 AM

Lab ID: 1208B34-003

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: JLF
Mercury	ND	0.00020		mg/L	1	9/12/2012 10:00:00 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Acenaphthylene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Aniline	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Anthracene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Azobenzene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Benz(a)anthracene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Benzoic acid	ND	20		µg/L	1	8/31/2012 12:36:27 PM
Benzyl alcohol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/31/2012 12:36:27 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Carbazole	ND	10		µg/L	1	8/31/2012 12:36:27 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
4-Chloroaniline	ND	10		µg/L	1	8/31/2012 12:36:27 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
2-Chlorophenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Chrysene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Dibenzofuran	ND	10		µg/L	1	8/31/2012 12:36:27 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Diethyl phthalate	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Dimethyl phthalate	ND	10		µg/L	1	8/31/2012 12:36:27 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/31/2012 12:36:27 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/31/2012 12:36:27 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/31/2012 12:36:27 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

Analytical Report

Lab Order 1208B34

Date Reported: 10/3/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-5

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 10:00:00 AM

Lab ID: 1208B34-003

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Fluoranthene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Fluorene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Hexachlorobenzene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Hexachloroethane	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Isophorone	ND	10		µg/L	1	8/31/2012 12:36:27 PM
1-Methylnaphthalene	88	10		µg/L	1	8/31/2012 12:36:27 PM
2-Methylnaphthalene	110	10		µg/L	1	8/31/2012 12:36:27 PM
2-Methylphenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
3+4-Methylphenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/31/2012 12:36:27 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/31/2012 12:36:27 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Naphthalene	79	10		µg/L	1	8/31/2012 12:36:27 PM
2-Nitroaniline	ND	10		µg/L	1	8/31/2012 12:36:27 PM
3-Nitroaniline	ND	10		µg/L	1	8/31/2012 12:36:27 PM
4-Nitroaniline	ND	20		µg/L	1	8/31/2012 12:36:27 PM
Nitrobenzene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
2-Nitrophenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
4-Nitrophenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Pentachlorophenol	ND	20		µg/L	1	8/31/2012 12:36:27 PM
Phenanthrene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Phenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Pyrene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Pyridine	ND	10		µg/L	1	8/31/2012 12:36:27 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Surr: 2,4,6-Tribromophenol	94.2	44.2-126		%REC	1	8/31/2012 12:36:27 PM
Surr: 2-Fluorobiphenyl	78.8	37-114		%REC	1	8/31/2012 12:36:27 PM
Surr: 2-Fluorophenol	54.5	23.4-98		%REC	1	8/31/2012 12:36:27 PM
Surr: 4-Terphenyl-d14	71.4	41.3-116		%REC	1	8/31/2012 12:36:27 PM
Surr: Nitrobenzene-d5	74.9	39.5-118		%REC	1	8/31/2012 12:36:27 PM
Surr: Phenol-d5	44.2	20.9-95.9		%REC	1	8/31/2012 12:36:27 PM
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
Benzene	190	10		µg/L	10	9/4/2012 9:06:06 PM
Toluene	ND	10		µg/L	10	9/4/2012 9:06:06 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 1208B34

Date Reported: 10/3/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-5

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 10:00:00 AM

Lab ID: 1208B34-003

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
Ethylbenzene	260	10		µg/L	10	9/4/2012 9:06:06 PM
Methyl tert-butyl ether (MTBE)	32	10		µg/L	10	9/4/2012 9:06:06 PM
1,2,4-Trimethylbenzene	54	10		µg/L	10	9/4/2012 9:06:06 PM
1,3,5-Trimethylbenzene	16	10		µg/L	10	9/4/2012 9:06:06 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Naphthalene	110	20		µg/L	10	9/4/2012 9:06:06 PM
1-Methylnaphthalene	110	40		µg/L	10	9/4/2012 9:06:06 PM
2-Methylnaphthalene	170	40		µg/L	10	9/4/2012 9:06:06 PM
Acetone	ND	100		µg/L	10	9/4/2012 9:06:06 PM
Bromobenzene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Bromodichloromethane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Bromoform	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Bromomethane	ND	30		µg/L	10	9/4/2012 9:06:06 PM
2-Butanone	ND	100		µg/L	10	9/4/2012 9:06:06 PM
Carbon disulfide	ND	100		µg/L	10	9/4/2012 9:06:06 PM
Carbon Tetrachloride	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Chlorobenzene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Chloroethane	ND	20		µg/L	10	9/4/2012 9:06:06 PM
Chloroform	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Chloromethane	ND	30		µg/L	10	9/4/2012 9:06:06 PM
2-Chlorotoluene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
4-Chlorotoluene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
cis-1,2-DCE	ND	10		µg/L	10	9/4/2012 9:06:06 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	9/4/2012 9:06:06 PM
Dibromochloromethane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Dibromomethane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Dichlorodifluoromethane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,1-Dichloroethane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,1-Dichloroethene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,2-Dichloropropane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,3-Dichloropropane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
2,2-Dichloropropane	ND	20		µg/L	10	9/4/2012 9:06:06 PM
1,1-Dichloropropene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Hexachlorobutadiene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
2-Hexanone	ND	100		µg/L	10	9/4/2012 9:06:06 PM
Isopropylbenzene	18	10		µg/L	10	9/4/2012 9:06:06 PM
4-Isopropyltoluene	ND	10		µg/L	10	9/4/2012 9:06:06 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

Analytical Report

Lab Order 1208B34

Date Reported: 10/3/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** RW-5**Project:** 3rd QTR 2012 Groundwater Sampling**Collection Date:** 8/23/2012 10:00:00 AM**Lab ID:** 1208B34-003**Matrix:** AQUEOUS**Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
4-Methyl-2-pentanone	ND	100		µg/L	10	9/4/2012 9:06:06 PM
Methylene Chloride	ND	30		µg/L	10	9/4/2012 9:06:06 PM
n-Butylbenzene	ND	30		µg/L	10	9/4/2012 9:06:06 PM
n-Propylbenzene	68	10		µg/L	10	9/4/2012 9:06:06 PM
sec-Butylbenzene	13	10		µg/L	10	9/4/2012 9:06:06 PM
Styrene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
tert-Butylbenzene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	9/4/2012 9:06:06 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	9/4/2012 9:06:06 PM
trans-1,2-DCE	ND	10		µg/L	10	9/4/2012 9:06:06 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Trichloroethene (TCE)	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Trichlorofluoromethane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	9/4/2012 9:06:06 PM
Vinyl chloride	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Xylenes, Total	91	15		µg/L	10	9/4/2012 9:06:06 PM
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%REC	10	9/4/2012 9:06:06 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	10	9/4/2012 9:06:06 PM
Surr: Dibromofluoromethane	102	70-130		%REC	10	9/4/2012 9:06:06 PM
Surr: Toluene-d8	100	70-130		%REC	10	9/4/2012 9:06:06 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 1208B34

Date Reported: 10/3/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-6

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 10:15:00 AM

Lab ID: 1208B34-004

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	ND	0.50		mg/L	5	8/27/2012 8:00:32 PM
Chloride	45	2.5		mg/L	5	8/27/2012 8:00:32 PM
Bromide	0.95	0.50		mg/L	5	8/27/2012 8:00:32 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/27/2012 8:00:32 PM
Sulfate	ND	2.5		mg/L	5	8/27/2012 8:00:32 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/29/2012 5:27:35 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	3.7	0.010	*	mg/L	5	9/12/2012 3:06:42 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 3:03:34 PM
Calcium	77	1.0		mg/L	1	9/12/2012 3:03:34 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 3:03:34 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 3:03:34 PM
Iron	8.3	0.20	*	mg/L	10	9/12/2012 4:04:12 PM
Lead	0.0091	0.0050		mg/L	1	9/12/2012 3:03:34 PM
Magnesium	15	1.0		mg/L	1	9/12/2012 3:03:34 PM
Manganese	0.92	0.0020	*	mg/L	1	9/12/2012 3:03:34 PM
Potassium	ND	1.0		mg/L	1	9/12/2012 3:03:34 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 3:03:34 PM
Sodium	290	5.0		mg/L	5	9/12/2012 3:06:42 PM
Zinc	0.021	0.010		mg/L	1	9/12/2012 3:03:34 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	3.7	0.010	*	mg/L	5	9/10/2012 9:29:13 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 9:26:22 AM
Chromium	ND	0.0060		mg/L	1	9/10/2012 9:26:22 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 9:26:22 AM
Iron	7.4	0.40	*	mg/L	20	9/11/2012 10:58:06 AM
Lead	0.0093	0.0050		mg/L	1	9/10/2012 9:26:22 AM
Manganese	0.89	0.0020	*	mg/L	1	9/10/2012 9:26:22 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 10:55:05 AM
Zinc	ND	0.010		mg/L	1	9/10/2012 9:26:22 AM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.015	0.0010	*	mg/L	1	9/6/2012 3:32:09 PM
Selenium	0.0016	0.0010		mg/L	1	9/6/2012 3:32:09 PM
Uranium	ND	0.0010		mg/L	1	9/6/2012 3:32:09 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.015	0.0025	*	mg/L	2.5	9/6/2012 6:53:06 PM
Selenium	ND	0.0025		mg/L	2.5	9/6/2012 6:53:06 PM
Uranium	ND	0.0025		mg/L	2.5	9/13/2012 1:45:14 PM
EPA METHOD 245.1: MERCURY						Analyst: JLF

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

Analytical Report

Lab Order 1208B34

Date Reported: 10/3/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-6

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 10:15:00 AM

Lab ID: 1208B34-004

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: JLF
Mercury	ND	0.00020		mg/L	1	9/12/2012 10:01:53 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Acenaphthylene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Aniline	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Anthracene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Azobenzene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Benz(a)anthracene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Benzoic acid	ND	20		µg/L	1	8/31/2012 1:05:53 PM
Benzyl alcohol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/31/2012 1:05:53 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Carbazole	ND	10		µg/L	1	8/31/2012 1:05:53 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
4-Chloroaniline	ND	10		µg/L	1	8/31/2012 1:05:53 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
2-Chlorophenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Chrysene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Dibenzofuran	ND	10		µg/L	1	8/31/2012 1:05:53 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Diethyl phthalate	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Dimethyl phthalate	ND	10		µg/L	1	8/31/2012 1:05:53 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/31/2012 1:05:53 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/31/2012 1:05:53 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/31/2012 1:05:53 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 1208B34

Date Reported: 10/3/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-6

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 10:15:00 AM

Lab ID: 1208B34-004

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Fluoranthene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Fluorene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Hexachlorobenzene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Hexachloroethane	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Isophorone	ND	10		µg/L	1	8/31/2012 1:05:53 PM
1-Methylnaphthalene	490	50		µg/L	5	8/31/2012 4:03:50 PM
2-Methylnaphthalene	650	50		µg/L	5	8/31/2012 4:03:50 PM
2-Methylphenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
3+4-Methylphenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/31/2012 1:05:53 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/31/2012 1:05:53 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Naphthalene	550	50		µg/L	5	8/31/2012 4:03:50 PM
2-Nitroaniline	ND	10		µg/L	1	8/31/2012 1:05:53 PM
3-Nitroaniline	ND	10		µg/L	1	8/31/2012 1:05:53 PM
4-Nitroaniline	ND	20		µg/L	1	8/31/2012 1:05:53 PM
Nitrobenzene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
2-Nitrophenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
4-Nitrophenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Pentachlorophenol	ND	20		µg/L	1	8/31/2012 1:05:53 PM
Phenanthrene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Phenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Pyrene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Pyridine	ND	10		µg/L	1	8/31/2012 1:05:53 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Surr: 2,4,6-Tribromophenol	104	44.2-126		%REC	1	8/31/2012 1:05:53 PM
Surr: 2-Fluorobiphenyl	79.9	37-114		%REC	1	8/31/2012 1:05:53 PM
Surr: 2-Fluorophenol	25.2	23.4-98		%REC	1	8/31/2012 1:05:53 PM
Surr: 4-Terphenyl-d14	79.5	41.3-116		%REC	1	8/31/2012 1:05:53 PM
Surr: Nitrobenzene-d5	0	39.5-118	S	%REC	1	8/31/2012 1:05:53 PM
Surr: Phenol-d5	55.9	20.9-95.9		%REC	1	8/31/2012 1:05:53 PM
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
Benzene	740	50		µg/L	50	8/30/2012 3:22:54 AM
Toluene	52	50		µg/L	50	8/30/2012 3:22:54 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

Analytical Report

Lab Order 1208B34

Date Reported: 10/3/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-6

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 10:15:00 AM

Lab ID: 1208B34-004

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
Ethylbenzene	400	50		µg/L	50	8/30/2012 3:22:54 AM
Methyl tert-butyl ether (MTBE)	73	50		µg/L	50	8/30/2012 3:22:54 AM
1,2,4-Trimethylbenzene	380	50		µg/L	50	8/30/2012 3:22:54 AM
1,3,5-Trimethylbenzene	170	50		µg/L	50	8/30/2012 3:22:54 AM
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Naphthalene	580	100		µg/L	50	8/30/2012 3:22:54 AM
1-Methylnaphthalene	220	200		µg/L	50	8/30/2012 3:22:54 AM
2-Methylnaphthalene	360	200		µg/L	50	8/30/2012 3:22:54 AM
Acetone	ND	500		µg/L	50	8/30/2012 3:22:54 AM
Bromobenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Bromodichloromethane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Bromoform	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Bromomethane	ND	150		µg/L	50	8/30/2012 3:22:54 AM
2-Butanone	ND	500		µg/L	50	8/30/2012 3:22:54 AM
Carbon disulfide	ND	500		µg/L	50	8/30/2012 3:22:54 AM
Carbon Tetrachloride	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Chlorobenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Chloroethane	ND	100		µg/L	50	8/30/2012 3:22:54 AM
Chloroform	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Chloromethane	ND	150		µg/L	50	8/30/2012 3:22:54 AM
2-Chlorotoluene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
4-Chlorotoluene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
cis-1,2-DCE	ND	50		µg/L	50	8/30/2012 3:22:54 AM
cis-1,3-Dichloropropene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	8/30/2012 3:22:54 AM
Dibromochloromethane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Dibromomethane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,2-Dichlorobenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,3-Dichlorobenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,4-Dichlorobenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Dichlorodifluoromethane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,1-Dichloroethane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,1-Dichloroethene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,2-Dichloropropane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,3-Dichloropropane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
2,2-Dichloropropane	ND	100		µg/L	50	8/30/2012 3:22:54 AM
1,1-Dichloropropene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Hexachlorobutadiene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
2-Hexanone	ND	500		µg/L	50	8/30/2012 3:22:54 AM
Isopropylbenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
4-Isopropyltoluene	ND	50		µg/L	50	8/30/2012 3:22:54 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 1208B34

Date Reported: 10/3/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: RW-6

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/23/2012 10:15:00 AM

Lab ID: 1208B34-004

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
4-Methyl-2-pentanone	ND	500		µg/L	50	8/30/2012 3:22:54 AM
Methylene Chloride	ND	150		µg/L	50	8/30/2012 3:22:54 AM
n-Butylbenzene	ND	150		µg/L	50	8/30/2012 3:22:54 AM
n-Propylbenzene	74	50		µg/L	50	8/30/2012 3:22:54 AM
sec-Butylbenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Styrene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
tert-Butylbenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	8/30/2012 3:22:54 AM
Tetrachloroethene (PCE)	ND	50		µg/L	50	8/30/2012 3:22:54 AM
trans-1,2-DCE	ND	50		µg/L	50	8/30/2012 3:22:54 AM
trans-1,3-Dichloropropene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,2,3-Trichlorobenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,1,1-Trichloroethane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,1,2-Trichloroethane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Trichloroethene (TCE)	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Trichlorofluoromethane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,2,3-Trichloropropane	ND	100		µg/L	50	8/30/2012 3:22:54 AM
Vinyl chloride	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Xylenes, Total	1600	75		µg/L	50	8/30/2012 3:22:54 AM
Surr: 1,2-Dichloroethane-d4	99.2	70-130		%REC	50	8/30/2012 3:22:54 AM
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	50	8/30/2012 3:22:54 AM
Surr: Dibromofluoromethane	106	70-130		%REC	50	8/30/2012 3:22:54 AM
Surr: Toluene-d8	93.4	70-130		%REC	50	8/30/2012 3:22:54 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

Analytical Report

Lab Order 1208B34

Date Reported: 10/3/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012

Lab ID: 1208B34-005

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
Benzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Toluene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Naphthalene	ND	2.0		µg/L	1	8/30/2012 4:21:39 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 4:21:39 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 4:21:39 AM
Acetone	ND	10		µg/L	1	8/30/2012 4:21:39 AM
Bromobenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Bromoform	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Bromomethane	ND	3.0		µg/L	1	8/30/2012 4:21:39 AM
2-Butanone	ND	10		µg/L	1	8/30/2012 4:21:39 AM
Carbon disulfide	ND	10		µg/L	1	8/30/2012 4:21:39 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Chloroethane	ND	2.0		µg/L	1	8/30/2012 4:21:39 AM
Chloroform	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Chloromethane	ND	3.0		µg/L	1	8/30/2012 4:21:39 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2012 4:21:39 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Dibromomethane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2012 4:21:39 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
2-Hexanone	ND	10		µg/L	1	8/30/2012 4:21:39 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 1208B34

Date Reported: 10/3/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date: 8/24/2012

Lab ID: 1208B34-005

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
Isopropylbenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2012 4:21:39 AM
Methylene Chloride	ND	3.0		µg/L	1	8/30/2012 4:21:39 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/30/2012 4:21:39 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Styrene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2012 4:21:39 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2012 4:21:39 AM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Xylenes, Total	ND	1.5		µg/L	1	8/30/2012 4:21:39 AM
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	8/30/2012 4:21:39 AM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	8/30/2012 4:21:39 AM
Surr: Dibromofluoromethane	99.7	70-130		%REC	1	8/30/2012 4:21:39 AM
Surr: Toluene-d8	96.5	70-130		%REC	1	8/30/2012 4:21:39 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

Analytical Report

Lab Order 1208B34

Date Reported: 10/3/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date:

Lab ID: 1208B34-006

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
Benzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Toluene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Naphthalene	ND	2.0		µg/L	1	8/30/2012 4:50:53 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 4:50:53 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 4:50:53 AM
Acetone	ND	10		µg/L	1	8/30/2012 4:50:53 AM
Bromobenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Bromoform	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Bromomethane	ND	3.0		µg/L	1	8/30/2012 4:50:53 AM
2-Butanone	ND	10		µg/L	1	8/30/2012 4:50:53 AM
Carbon disulfide	ND	10		µg/L	1	8/30/2012 4:50:53 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Chloroethane	ND	2.0		µg/L	1	8/30/2012 4:50:53 AM
Chloroform	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Chloromethane	ND	3.0		µg/L	1	8/30/2012 4:50:53 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2012 4:50:53 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Dibromomethane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2012 4:50:53 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
2-Hexanone	ND	10		µg/L	1	8/30/2012 4:50:53 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 1208B34

Date Reported: 10/3/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 3rd QTR 2012 Groundwater Sampling

Collection Date:

Lab ID: 1208B34-006

Matrix: AQUEOUS

Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
Isopropylbenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2012 4:50:53 AM
Methylene Chloride	ND	3.0		µg/L	1	8/30/2012 4:50:53 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/30/2012 4:50:53 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Styrene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2012 4:50:53 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2012 4:50:53 AM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Xylenes, Total	ND	1.5		µg/L	1	8/30/2012 4:50:53 AM
Surr: 1,2-Dichloroethane-d4	92.2	70-130		%REC	1	8/30/2012 4:50:53 AM
Surr: 4-Bromofluorobenzene	94.2	70-130		%REC	1	8/30/2012 4:50:53 AM
Surr: Dibromofluoromethane	98.8	70-130		%REC	1	8/30/2012 4:50:53 AM
Surr: Toluene-d8	94.3	70-130		%REC	1	8/30/2012 4:50:53 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#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3584		SampType:	MBLK		TestCode:	EPA Method 200.7: Metals			
Client ID:	PBW		Batch ID:	3584		RunNo:	5311			
Prep Date:	9/4/2012		Analysis Date:	9/5/2012		SeqNo:	151260		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-3584		SampType:	LCS		TestCode:	EPA Method 200.7: Metals			
Client ID:	LCSW		Batch ID:	3584		RunNo:	5311			
Prep Date:	9/4/2012		Analysis Date:	9/5/2012		SeqNo:	151261		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.7	85	115			
Cadmium	0.52	0.0020	0.5000	0	103	85	115			
Chromium	0.50	0.0060	0.5000	0	99.2	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	98.2	85	115			
Zinc	0.50	0.010	0.5000	0	100	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

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID MB	SampType: MBLK	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: PBW	Batch ID: R5457	RunNo: 5457								
Prep Date:	Analysis Date: 9/12/2012	SeqNo: 155926 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: R5457	RunNo: 5457								
Prep Date:	Analysis Date: 9/12/2012	SeqNo: 155927 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			
Calcium	52	1.0	50.00	0	104	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.50	0.020	0.5000	0.002590	99.7	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Potassium	51	1.0	50.00	0	102	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	52	1.0	50.00	0	105	85	115			
Zinc	0.49	0.010	0.5000	0	99.0	85	115			

Sample ID 1208996-003DMS	SampType: MS	TestCode: EPA Method 200.7: Dissolved Metals								
Client ID: BatchQC	Batch ID: R5457	RunNo: 5457								
Prep Date:	Analysis Date: 9/12/2012	SeqNo: 156329 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1271	105	70	130			
Cadmium	0.53	0.0020	0.5000	0	105	70	130			
Chromium	0.52	0.0060	0.5000	0.001070	103	70	130			
Copper	0.56	0.0060	0.5000	0	112	70	130			

Modifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208996-003DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156329	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.56	0.020	0.5000	0.04012	104	70	130			
Lead	0.51	0.0050	0.5000	0	102	70	130			
Magnesium	69	1.0	50.00	13.55	112	70	130			
Manganese	0.53	0.0020	0.5000	0.0006300	106	70	130			
Potassium	56	1.0	50.00	2.284	108	70	130			
Silver	0.10	0.0050	0.1000	0	103	70	130			
Sodium	83	1.0	50.00	27.29	111	70	130			
Zinc	0.52	0.010	0.5000	0.01358	101	70	130			

Sample ID	1208996-003DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156330	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1271	101	70	130	3.05	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	2.73	20	
Chromium	0.50	0.0060	0.5000	0.001070	99.7	70	130	3.48	20	
Copper	0.55	0.0060	0.5000	0	110	70	130	1.68	20	
Iron	0.56	0.020	0.5000	0.04012	103	70	130	0.424	20	
Lead	0.50	0.0050	0.5000	0	99.2	70	130	2.65	20	
Magnesium	68	1.0	50.00	13.55	109	70	130	1.63	20	
Manganese	0.52	0.0020	0.5000	0.0006300	103	70	130	2.93	20	
Potassium	55	1.0	50.00	2.284	106	70	130	1.53	20	
Silver	0.099	0.0050	0.1000	0	99.4	70	130	3.30	20	
Sodium	82	1.0	50.00	27.29	109	70	130	0.982	20	
Zinc	0.50	0.010	0.5000	0.01358	96.5	70	130	4.24	20	

Sample ID	1208996-003DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156332	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	66.77	122	70	130			

Sample ID	1208996-003DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156333	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	330	5.0	250.0	66.77	106	70	130	11.7	20	

Qualifiers:

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

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156417	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:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156418	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.001060	97.0	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	95.5	85	115			
Copper	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.50	0.020	0.5000	0.003080	99.0	85	115			
Lead	0.47	0.0050	0.5000	0	94.1	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.49	0.0020	0.5000	0	98.8	85	115			
Potassium	49	1.0	50.00	0	98.4	85	115			
Silver	0.10	0.0050	0.1000	0.001260	98.6	85	115			
Sodium	51	1.0	50.00	0	103	85	115			
Zinc	0.46	0.010	0.5000	0	92.6	85	115			

Sample ID	1208A83-002AMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5457	RunNo:	5457					
Prep Date:		Analysis Date:	9/12/2012	SeqNo:	156420	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0.007580	89.5	70	130			
Cadmium	0.46	0.0020	0.5000	0.001310	92.5	70	130			
Chromium	0.44	0.0060	0.5000	0	88.1	70	130			
Copper	0.55	0.0060	0.5000	0.04934	99.8	70	130			

ifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208A83-002AMS		SampType:	MS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	R5457		RunNo:	5457			
Prep Date:			Analysis Date:	9/12/2012		SeqNo:	156420		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.47	0.020	0.5000	0.003920	92.6	70	130			
Magnesium	78	1.0	50.00	28.77	99.1	70	130			
Potassium	50	1.0	50.00	1.179	97.1	70	130			
Silver	0.093	0.0050	0.1000	0	93.0	70	130			
Sodium	60	1.0	50.00	9.466	102	70	130			
Zinc	0.90	0.010	0.5000	0.5237	75.6	70	130			

Sample ID	1208A83-002AMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	R5457		RunNo:	5457			
Prep Date:			Analysis Date:	9/12/2012		SeqNo:	156421		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.45	0.0020	0.5000	0.007580	88.6	70	130	0.945	20	
Cadmium	0.46	0.0020	0.5000	0.001310	91.1	70	130	1.54	20	
Chromium	0.43	0.0060	0.5000	0	86.4	70	130	1.96	20	
Copper	0.55	0.0060	0.5000	0.04934	99.3	70	130	0.477	20	
Iron	0.46	0.020	0.5000	0.003920	91.1	70	130	1.62	20	
Magnesium	78	1.0	50.00	28.77	98.2	70	130	0.598	20	
Potassium	49	1.0	50.00	1.179	96.4	70	130	0.773	20	
Silver	0.093	0.0050	0.1000	0	93.1	70	130	0.150	20	
Sodium	60	1.0	50.00	9.466	101	70	130	0.803	20	
Zinc	0.89	0.010	0.5000	0.5237	72.8	70	130	1.59	20	

Sample ID	1208A83-002AMS		SampType:	MS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	R5457		RunNo:	5457			
Prep Date:			Analysis Date:	9/12/2012		SeqNo:	156423		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130			
Manganese	4.3	0.010	2.500	1.779	99.4	70	130			

Sample ID	1208A83-002AMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	R5457		RunNo:	5457			
Prep Date:			Analysis Date:	9/12/2012		SeqNo:	156424		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130	0.395	20	
Manganese	4.3	0.010	2.500	1.779	102	70	130	1.46	20	

Qualifiers:

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

- 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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: 1208B34
03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3584		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	3584		RunNo:	5311			
Prep Date:	9/4/2012		Analysis Date:	9/5/2012		SeqNo:	151199	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-3584		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	3584		RunNo:	5311			
Prep Date:	9/4/2012		Analysis Date:	9/5/2012		SeqNo:	151200	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.7	85	115			
Cadmium	0.52	0.0020	0.5000	0	103	85	115			
Chromium	0.50	0.0060	0.5000	0	99.2	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	98.2	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Sample ID	MB-3584		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	3584		RunNo:	5435			
Prep Date:	9/4/2012		Analysis Date:	9/11/2012		SeqNo:	155086	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID	LCS-3584		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	3584		RunNo:	5435			
Prep Date:	9/4/2012		Analysis Date:	9/11/2012		SeqNo:	155087	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.096	0.0050	0.1000	0	96.4	85	115			

Sample ID	1208B37-002DMS		SampType:	MS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	BatchQC		Batch ID:	3584		RunNo:	5435			
Prep Date:	9/4/2012		Analysis Date:	9/11/2012		SeqNo:	155140	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

ifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208B37-002DMS	SampType:	MS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	3584	RunNo:	5435					
Prep Date:	9/4/2012	Analysis Date:	9/11/2012	SeqNo:	155140	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	100	70	130			
Chromium	0.47	0.0060	0.5000	0	93.5	70	130			
Copper	0.56	0.0060	0.5000	0	111	70	130			
Lead	0.48	0.0050	0.5000	0.003250	94.7	70	130			
Silver	0.024	0.0050	0.1000	0	24.1	70	130			S
Zinc	0.46	0.010	0.5000	0.001840	91.9	70	130			

Sample ID	1208B37-002DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	3584	RunNo:	5435					
Prep Date:	9/4/2012	Analysis Date:	9/11/2012	SeqNo:	155141	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	99.1	70	130	1.07	20	
Chromium	0.46	0.0060	0.5000	0	92.4	70	130	1.20	20	
Copper	0.56	0.0060	0.5000	0	111	70	130	0.121	20	
Lead	0.48	0.0050	0.5000	0.003250	94.4	70	130	0.332	20	
Silver	0.025	0.0050	0.1000	0	25.1	70	130	3.78	20	S
Zinc	0.45	0.010	0.5000	0.001840	90.3	70	130	1.70	20	

Sample ID	1208B37-002DMS	SampType:	MS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	3584	RunNo:	5435					
Prep Date:	9/4/2012	Analysis Date:	9/11/2012	SeqNo:	155164	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.6	0.010	0.5000	1.180	87.6	70	130			

Sample ID	1208B37-002DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	3584	RunNo:	5435					
Prep Date:	9/4/2012	Analysis Date:	9/11/2012	SeqNo:	155165	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.6	0.010	0.5000	1.180	87.1	70	130	0.155	20	

Qualifiers:

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

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3584	SampType:	MBLK	TestCode:	EPA 200.8: Metals					
Client ID:	PBW	Batch ID:	3584	RunNo:	5508					
Prep Date:	9/4/2012	Analysis Date:	9/13/2012	SeqNo:	157391	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

Sample ID	MB-3888	SampType:	MBLK	TestCode:	EPA 200.8: Metals					
Client ID:	PBW	Batch ID:	3888	RunNo:	5786					
Prep Date:	9/24/2012	Analysis Date:	9/26/2012	SeqNo:	166267	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0025								

ifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208476-008EMS			SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	BatchQC			Batch ID:	R5350		RunNo:	5350			
Prep Date:				Analysis Date:	9/6/2012		SeqNo:	152349		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.029	0.0010	0.02500	0	117	70	130				

Sample ID	1208654-002AMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5350	RunNo:	5350					
Prep Date:		Analysis Date:	9/6/2012	SeqNo:	152351	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.16	0.0050	0.1250	0.03618	99.4	70	130			

Sample ID	1208944-008AMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R5350	RunNo:	5350					
Prep Date:		Analysis Date:	9/6/2012	SeqNo:	152364	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0.0002792	97.9	70	130			
Selenium	0.029	0.0010	0.02500	0.004276	97.4	70	130			
Uranium	0.034	0.0010	0.02500	0.008442	103	70	130			

Sample ID	1208A83-002AMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R5350		RunNo: 5350					
Prep Date:			Analysis Date: 9/6/2012		SeqNo: 152381		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	70	130			
Selenium	0.026	0.0010	0.02500	0.001591	98.2	70	130			
Uranium	0.027	0.0010	0.02500	0.0009453	103	70	130			

Sample ID	1208B35-001DMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R5350		RunNo: 5350					
Prep Date:			Analysis Date: 9/6/2012		SeqNo: 152398		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.12	0.0050	0.1250	0.003821	93.6	70	130			
Selenium	0.11	0.0050	0.1250	0.007249	83.7	70	130			
Uranium	0.23	0.0050	0.1250	0.1005	107	70	130			

Sample ID	LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID: R5350			RunNo: 5350					
Prep Date:		Analysis Date: 9/6/2012			SeqNo: 152416		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			

Qualifiers:

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

- 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

QC SUMMARY REPORT

WO#: 1208B34

all Environmental Analysis Laboratory, Inc.

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R5350		RunNo: 5350					
Prep Date:			Analysis Date: 9/6/2012		SeqNo: 152416		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	101	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: R5350		RunNo: 5350					
Prep Date:			Analysis Date: 9/6/2012		SeqNo: 152417		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	0.026	0.0010	0.02500	0	103	85	115			
Uranium	0.024	0.0010	0.02500	0	97.0	85	115			

Sample ID	MB	SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	PBW	Batch ID:	R5350		RunNo:	5350				
Prep Date:		Analysis Date:	9/6/2012		SeqNo:	152420	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: R5350		RunNo: 5350						
Prep Date:		Analysis Date: 9/6/2012		SeqNo: 152421		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								

Modifiers:

- | | | |
|--|----|--|
| Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| Sample pH greater than 2 | R | RPD outside accepted recovery limits |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3584		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total				
Client ID:	PBW		Batch ID:	3584		RunNo:	5392				
Prep Date:	9/4/2012		Analysis Date:	9/6/2012		SeqNo:	153679		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	MB-3584		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total				
Client ID:	PBW		Batch ID:	3584		RunNo:	5508				
Prep Date:	9/4/2012		Analysis Date:	9/13/2012		SeqNo:	157424		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	ND	0.0025									

Sample ID	MB-3888		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total				
Client ID:	PBW		Batch ID:	3888		RunNo:	5786				
Prep Date:	9/24/2012		Analysis Date:	9/26/2012		SeqNo:	166261		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Selenium	ND	0.0025									

Qualifiers:

- | | |
|--|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | 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 |

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3705	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	3705	RunNo:	5464					
Prep Date:	9/11/2012	Analysis Date:	9/12/2012	SeqNo:	156146	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-3705	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	3705	RunNo:	5464					
Prep Date:	9/11/2012	Analysis Date:	9/12/2012	SeqNo:	156147	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	99.9	80	120			

Sample ID	1208A83-001BMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	3705	RunNo:	5464					
Prep Date:	9/11/2012	Analysis Date:	9/12/2012	SeqNo:	156149	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	75	125			

Sample ID	1208A83-001BMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	3705	RunNo:	5464					
Prep Date:	9/11/2012	Analysis Date:	9/12/2012	SeqNo:	156150	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	97.7	75	125	0.517	20	

Notes:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH greater than 2

- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208B39-001BMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R5125	RunNo:	5125					
Prep Date:		Analysis Date:	8/27/2012	SeqNo:	145633	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.2	0.10	0.5000	0.7261	87.5	76.6	110			
Chloride	9.9	0.50	5.000	4.684	105	87.8	111			
Bromide	2.5	0.10	2.500	0.09394	94.3	83.3	107			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	97.0	74.5	115			
Sulfate	29	0.50	10.00	18.80	104	84.6	122			

Sample ID	1208B39-001BMDS	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R5125	RunNo:	5125					
Prep Date:		Analysis Date:	8/27/2012	SeqNo:	145634	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.2	0.10	0.5000	0.7261	87.9	76.6	110	0.136	20	
Chloride	9.8	0.50	5.000	4.684	103	87.8	111	1.03	20	
Bromide	2.4	0.10	2.500	0.09394	92.3	83.3	107	2.02	20	
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.4	74.5	115	1.64	20	
Sulfate	29	0.50	10.00	18.80	100	84.6	122	1.21	20	

Sample ID	1208B66-001BMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R5125	RunNo:	5125					
Prep Date:		Analysis Date:	8/27/2012	SeqNo:	145645	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.4	0.10	0.5000	1.973	90.8	76.6	110			
Chloride	18	0.50	5.000	11.71	117	87.8	111			S
Bromide	2.2	0.10	2.500	0	89.4	83.3	107			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	101	74.5	115			

Sample ID	1208B66-001BMDS	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R5125	RunNo:	5125					
Prep Date:		Analysis Date:	8/27/2012	SeqNo:	145646	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.4	0.10	0.5000	1.973	95.3	76.6	110	0.921	20	
Chloride	18	0.50	5.000	11.71	119	87.8	111	0.300	20	S
Bromide	2.2	0.10	2.500	0	89.1	83.3	107	0.390	20	
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.9	74.5	115	0.717	20	

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R5125	RunNo:	5125					
Prep Date:		Analysis Date:	8/27/2012	SeqNo:	145648	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
- 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

QC SUMMARY REPORT

WO#: 1208B34

all Environmental Analysis Laboratory, Inc.

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R5125	RunNo:	5125					
Prep Date:		Analysis Date:	8/27/2012	SeqNo:	145648	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-b	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R5125	RunNo:	5125					
Prep Date:		Analysis Date:	8/27/2012	SeqNo:	145649	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	97.3	90	110			
Chloride	4.8	0.50	5.000	0	96.0	90	110			
Bromide	2.4	0.10	2.500	0	94.3	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	100	90	110			
Sulfate	9.5	0.50	10.00	0	95.2	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R5224	RunNo:	5224					
Prep Date:		Analysis Date:	8/29/2012	SeqNo:	148465	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:	R5224	RunNo:	5224					
Prep Date:		Analysis Date:	8/29/2012	SeqNo:	148466	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	98.8	90	110			

Sample ID	1208C74-001BMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R5224	RunNo:	5224					
Prep Date:		Analysis Date:	8/29/2012	SeqNo:	148530	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	98.4	88.6	110			

ifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208C74-001BMSD			SampType:	MSD		TestCode:	EPA Method 300.0: Anions			
Client ID:	BatchQC		Batch ID:	R5224		RunNo:	5224				
Prep Date:				Analysis Date:	8/29/2012		SeqNo:	148531		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Nitrate+Nitrite as N	3.5	0.20	3.500	0	98.9	88.6	110	0.508	20		

Sample ID	MB	SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBW	Batch ID:	R5224		RunNo:	5224				
Prep Date:		Analysis Date:	8/29/2012		SeqNo:	148540	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:	R5224	RunNo:	5224					
Prep Date:		Analysis Date:	8/29/2012	SeqNo:	148541	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.6	90	110			

Sample ID	1208C70-001BMS			SampType:	MS		TestCode:	EPA Method 300.0: Anions			
Client ID:	BatchQC			Batch ID:	R5224		RunNo:	5224			
Prep Date:				Analysis Date:	8/29/2012		SeqNo:	148543		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	88.6	110				

Sample ID	1208C70-001BMSD			SampType:	MSD		TestCode:	EPA Method 300.0: Anions			
Client ID:	BatchQC		Batch ID:	R5224		RunNo:	5224				
Prep Date:			Analysis Date:	8/29/2012		SeqNo:	148544		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	88.6	110	0.0497	20		

Qualifiers:

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

- 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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: 5ml rb		SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW		Batch ID: R5192		RunNo: 5192						
Prep Date:		Analysis Date: 8/29/2012		SeqNo: 147638		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								
Chloromethane	ND	3.0								
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								

Modifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R5192	RunNo:	5192					
Prep Date:		Analysis Date:	8/29/2012	SeqNo:	147638	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	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.4	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R5192	RunNo:	5192					
Prep Date:		Analysis Date:	8/29/2012	SeqNo:	147639	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.9	70	130			
Toluene	21	1.0	20.00	0	103	80	120			
Chlorobenzene	19	1.0	20.00	0	96.0	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.0	73.7	122			
Trichloroethene (TCE)	19	1.0	20.00	0	94.2	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.4	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
- 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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R5192	RunNo:	5192					
Prep Date:		Analysis Date:	8/29/2012	SeqNo:	147639	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	9.8		10.00		97.9	70	130			

Sample ID	100ng lcs2	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R5192	RunNo:	5192					
Prep Date:		Analysis Date:	8/29/2012	SeqNo:	147640	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.7	70	130			
Toluene	21	1.0	20.00	0	106	80	120			
Chlorobenzene	22	1.0	20.00	0	108	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	87.9	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	86.8	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.5	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.5	70	130			
Surr: Dibromofluoromethane	9.2		10.00		91.6	70	130			
r: Toluene-d8	10		10.00		103	70	130			

Sample ID	1208b32-001ams	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R5192	RunNo:	5192					
Prep Date:		Analysis Date:	8/30/2012	SeqNo:	147829	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.3	66.8	128			
Toluene	21	1.0	20.00	0	107	70	130			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	88.9	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	87.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		91.0	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	1208b32-001amsd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R5192	RunNo:	5192					
Prep Date:		Analysis Date:	8/30/2012	SeqNo:	147831	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.5	66.8	128	0.291	16.7	
Toluene	21	1.0	20.00	0	103	70	130	4.19	18.7	
Chlorobenzene	20	1.0	20.00	0	102	70	130	0.235	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	91.1	70	130	2.39	16.7	

ifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208b32-001amsd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R5192	RunNo:	5192					
Prep Date:		Analysis Date:	8/30/2012	SeqNo:	147831	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	17	1.0	20.00	0	86.0	70	130	1.31	17.5	
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130	0	0	
Surr: Dibromofluoromethane	9.9		10.00		98.9	70	130	0	0	
Surr: Toluene-d8	9.9		10.00		98.8	70	130	0	0	

Sample ID	b2	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R5192	RunNo:	5192					
Prep Date:		Analysis Date:	8/29/2012	SeqNo:	147929	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								

Qualifiers:

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

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: b2	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: R5192	RunNo: 5192								
Prep Date:	Analysis Date: 8/29/2012	SeqNo: 147929	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
1,1-Dichloroethene	ND	3.0								
1,2-Dichloroethene	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		95.3	70	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	9.8		10.00		98.0	70	130			

ifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R5301	RunNo:	5301					
Prep Date:		Analysis Date:	9/4/2012	SeqNo:	150896	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								
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

- 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

QC SUMMARY REPORT

WO#: 1208B34

all Environmental Analysis Laboratory, Inc.

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R5301	RunNo:	5301					
Prep Date:		Analysis Date:	9/4/2012	SeqNo:	150896	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								
-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		99.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	100ng lcsb	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R5301	RunNo:	5301					
Prep Date:		Analysis Date:	9/4/2012	SeqNo:	150901	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.4	70	130			
Toluene	20	1.0	20.00	0	98.4	80	120			
Chlorobenzene	19	1.0	20.00	0	94.5	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	101	73.7	122			
Trichloroethene (TCE)	24	1.0	20.00	0	118	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.4	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			

lifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	100ng lcsb	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R5301	RunNo:	5301					
Prep Date:		Analysis Date:	9/4/2012	SeqNo:	150901	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	9.6		10.00		96.5	70	130			
Surr: Toluene-d8	9.2		10.00		91.9	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

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: 5ml rb	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles, Table I								
Client ID: PBW	Batch ID: R5192	RunNo: 5192								
Prep Date:	Analysis Date: 8/29/2012	SeqNo: 147886 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								
1,2-Dibromoethane (EDB)	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
Acetone	ND	10								
Acrylonitrile	ND	10								
Benzene	ND	1.0								
Bromochloromethane	ND	2.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
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								
omethane	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	0.50								
Ethylbenzene	ND	1.0								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	1.0								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
Toluene	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								

ifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	PBW	Batch ID:	R5192	RunNo:	5192					
Prep Date:		Analysis Date:	8/29/2012	SeqNo:	147886	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								
Vinyl chloride	ND	0.40								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.4	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	LCSW	Batch ID:	R5192	RunNo:	5192					
Prep Date:		Analysis Date:	8/29/2012	SeqNo:	147888	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.9	70	130			
Chlorobenzene	19	1.0	20.00	0	96.0	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.0	73.7	122			
Toluene	21	1.0	20.00	0	103	80	120			
Trichloroethene (TCE)	19	1.0	20.00	0	94.2	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.4	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.8		10.00		97.9	70	130			

Sample ID	1208981-001AMS	SampType:	MS	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	BatchQC	Batch ID:	R5192	RunNo:	5192					
Prep Date:		Analysis Date:	8/29/2012	SeqNo:	147934	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	37	2.0	40.00	0.8444	91.3	66.8	128			
Chlorobenzene	38	2.0	40.00	0	94.0	70	130			
1,1-Dichloroethene	38	2.0	40.00	0	96.1	70	130			
Toluene	41	2.0	40.00	0	102	70	130			
Trichloroethene (TCE)	35	2.0	40.00	0	87.5	70	130			
Surr: 1,2-Dichloroethane-d4	18		20.00		91.6	70	130			
Surr: 4-Bromofluorobenzene	20		20.00		102	70	130			
Surr: Dibromofluoromethane	19		20.00		95.3	70	130			
Surr: Toluene-d8	19		20.00		94.7	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

- 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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208981-001AMSD	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	BatchQC	Batch ID:	R5192	RunNo:	5192					
Prep Date:		Analysis Date:	8/29/2012	SeqNo:	147936	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	40	2.0	40.00	0.8444	98.8	66.8	128	7.78	16.7	
Chlorobenzene	36	2.0	40.00	0	89.2	70	130	5.30	19.5	
1,1-Dichloroethene	38	2.0	40.00	0	96.2	70	130	0.0583	16.7	
Toluene	37	2.0	40.00	0	91.9	70	130	10.5	18.7	
Trichloroethene (TCE)	35	2.0	40.00	0	87.6	70	130	0.0994	17.5	
Surr: 1,2-Dichloroethane-d4	19		20.00		95.6	70	130	0	0	
Surr: 4-Bromofluorobenzene	19		20.00		95.3	70	130	0	0	
Surr: Dibromofluoromethane	21		20.00		103	70	130	0	0	
Surr: Toluene-d8	18		20.00		90.1	70	130	0	0	

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	PBW	Batch ID:	R5301	RunNo:	5301					
Prep Date:		Analysis Date:	9/4/2012	SeqNo:	150926	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								
1,1-Dibromoethane (EDB)	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
Acetone	ND	10								
Acrylonitrile	ND	10								
Benzene	ND	1.0								
Bromochloromethane	ND	2.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
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	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,1-Dichloroethane	ND	1.0								

ifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: 5ml rb	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles, Table I								
Client ID: PBW	Batch ID: R5301	RunNo: 5301								
Prep Date:	Analysis Date: 9/4/2012	SeqNo: 150926	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	0.50								
Ethylbenzene	ND	1.0								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	1.0								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
Toluene	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	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	1.0								
Vinyl chloride	ND	0.40								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		99.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID: 100ng lcsb	SampType: LCS	TestCode: EPA Method 8260B: Volatiles, Table I								
Client ID: LCSW	Batch ID: R5301	RunNo: 5301								
Prep Date:	Analysis Date: 9/4/2012	SeqNo: 150927	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.4	70	130			
Chlorobenzene	19	1.0	20.00	0	94.5	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	101	73.7	122			
Toluene	20	1.0	20.00	0	98.4	80	120			
Trichloroethene (TCE)	24	1.0	20.00	0	118	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.4	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.5	70	130			
Surr: Toluene-d8	9.2		10.00		91.9	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 |
| P Sample pH greater than 2 | R RPD outside accepted recovery limits |

QC SUMMARY REPORT

WO#: 1208B34

all Environmental Analysis Laboratory, Inc.

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	1208d42-001ams	SampType:	MS	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	BatchQC	Batch ID:	R5301	RunNo:	5301					
Prep Date:		Analysis Date:	9/4/2012	SeqNo:	150928	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.9	66.8	128			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	94.6	70	130			
Toluene	21	1.0	20.00	0	105	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	88.5	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.1	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.1	70	130			
Surr: Dibromofluoromethane	9.9		10.00		98.6	70	130			
Surr: Toluene-d8	9.5		10.00		95.2	70	130			

Sample ID	1208d42-001amsd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	BatchQC	Batch ID:	R5301	RunNo:	5301					
Prep Date:		Analysis Date:	9/4/2012	SeqNo:	150929	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.9	66.8	128	0.988	16.7	
Chlorobenzene	19	1.0	20.00	0	97.2	70	130	3.42	19.5	
1,1-Dichloroethene	20	1.0	20.00	0	97.7	70	130	3.29	16.7	
Toluene	19	1.0	20.00	0	94.9	70	130	9.86	18.7	
Trichloroethene (TCE)	19	1.0	20.00	0	93.8	70	130	5.89	17.5	
Surr: 1,2-Dichloroethane-d4	10		10.00		105	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130	0	0	
Surr: Dibromofluoromethane	9.9		10.00		99.0	70	130	0	0	
Surr: Toluene-d8	9.2		10.00		92.4	70	130	0	0	

Modifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH greater than 2

- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	mb-3504	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	3504	RunNo:	5185					
Prep Date:	8/28/2012	Analysis Date:	8/29/2012	SeqNo:	147346	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								
2,6-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

- 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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: 1208B34
03-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	mb-3504	SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles						
Client ID:	PBW	Batch ID: 3504		RunNo: 5185						
Prep Date:	8/28/2012	Analysis Date: 8/29/2012		SeqNo: 147346		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
o-aniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
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	180		200.0		88.0	44.2	126			
Surr: 2-Fluorobiphenyl	60		100.0		60.3	37	114			
Surr: 2-Fluorophenol	94		200.0		47.0	23.4	98			
Surr: 4-Terphenyl-d14	72		100.0		72.5	41.3	116			
Surr: Nitrobenzene-d5	59		100.0		58.9	39.5	118			
Surr: Phenol-d5	75		200.0		37.5	20.9	95.9			

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208B34

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	Ics-3504		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 3504		RunNo: 5185					
Prep Date:	8/28/2012		Analysis Date: 8/29/2012		SeqNo: 147347		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	76	10	100.0	0	75.7	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	80.7	35.5	108			
2-Chlorophenol	160	10	200.0	0	78.0	29.8	106			
1,4-Dichlorobenzene	65	10	100.0	0	65.0	32.6	91.5			
2,4-Dinitrotoluene	92	10	100.0	0	92.2	44.7	112			
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.2	38.5	105			
4-Nitrophenol	120	10	200.0	0	58.1	11.6	73.1			
Pentachlorophenol	180	20	200.0	0	88.2	20.2	93			
Phenol	99	10	200.0	0	49.4	23	66.1			
Pyrene	77	10	100.0	0	77.4	40.1	101			
1,2,4-Trichlorobenzene	71	10	100.0	0	71.2	37.7	99.1			
Surr: 2,4,6-Tribromophenol	210		200.0		105	44.2	126			
Surr: 2-Fluorobiphenyl	76		100.0		75.7	37	114			
Surr: 2-Fluorophenol	110		200.0		54.0	23.4	98			
Surr: 4-Terphenyl-d14	82		100.0		82.5	41.3	116			
Surr: Nitrobenzene-d5	80		100.0		80.2	39.5	118			
Surr: Phenol-d5	96		200.0		48.2	20.9	95.9			

Sample ID	Icsd-3504		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 3504		RunNo: 5185					
Prep Date:	8/28/2012		Analysis Date: 8/29/2012		SeqNo: 147348		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	63	10	100.0	0	62.5	38.2	99.4	19.0	20	
4-Chloro-3-methylphenol	120	10	200.0	0	60.9	35.5	108	27.9	20	R
2-Chlorophenol	120	10	200.0	0	57.9	29.8	106	29.6	20	R
1,4-Dichlorobenzene	44	10	100.0	0	44.0	32.6	91.5	38.6	20	R
2,4-Dinitrotoluene	78	10	100.0	0	78.0	44.7	112	16.6	20	
N-Nitrosodi-n-propylamine	63	10	100.0	0	63.2	38.5	105	21.3	20	R
4-Nitrophenol	94	10	200.0	0	46.9	11.6	73.1	21.3	20	R
Pentachlorophenol	130	20	200.0	0	64.8	20.2	93	30.6	20	R
Phenol	71	10	200.0	0	35.7	23	66.1	32.2	20	R
Pyrene	65	10	100.0	0	65.2	40.1	101	17.0	20	
1,2,4-Trichlorobenzene	56	10	100.0	0	56.0	37.7	99.1	23.8	20	R
Surr: 2,4,6-Tribromophenol	150		200.0		74.9	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	65		100.0		64.7	37	114	0	0	
Surr: 2-Fluorophenol	91		200.0		45.4	23.4	98	0	0	
Surr: 4-Terphenyl-d14	68		100.0		67.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	62		100.0		62.5	39.5	118	0	0	
Surr: Phenol-d5	76		200.0		38.0	20.9	95.9	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

- 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



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87106
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: 1208B34

Received by/date: EM 08/24/12

Logged By: Anne Thorne

8/24/2012 3:40:00 PM

Am Th

Completed By: Anne Thorne

8/27/2012

Am Th

Reviewed By:

[Signature] 8/27/12

Chain of Custody

1. Were seals intact?

Yes ☒ No ☐ Not Present ☐

2. Is Chain of Custody complete?

Yes ☒ No ☐ Not Present ☐

3. How was the sample delivered?

Client

Log In

4. Coolers are present? (see 19. for cooler specific information)

Yes ☒ No ☐ NA ☐

5. Was an attempt made to cool the samples?

Yes ☒ No ☐ NA ☐

6. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C

Yes ☒ No ☐ NA ☐

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

Yes ☒ No ☐

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

Yes ☒ No ☐

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

Yes ☒ No ☐

10. Was preservative added to bottles?

Yes ☐ No ☒ NA ☐

11. VOA vials have zero headspace?

Yes ☒ No ☐ No VOA Vials ☐

12. Were any sample containers received broken?

Yes ☐ No ☒

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

Yes ☒ No ☐

14. Are matrices correctly identified on Chain of Custody?

Yes ☒ No ☐

15. Is it clear what analyses were requested?

Yes ☒ No ☐

16. Were all holding times able to be met?
(If no, notify customer for authorization.)

Yes ☒ No ☐

of preserved
bottles checked
for pH:

12 At 08/22/12

8

(2 or >12 unless noted)

Adjusted?

Checked by: *[Signature]*

Special Handling (If applicable)

17. 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:

18. Additional remarks:

19. 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*

October 15, 2012

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: Soil W of Pond 8

OrderNo.: 1210161

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 7 sample(s) on 10/3/2012 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,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1210161

Date Reported: 10/15/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** D-S**Project:** Soil W of Pond 8**Collection Date:** 9/27/2012 2:00:00 PM**Lab ID:** 1210161-001**Matrix:** SOIL**Received Date:** 10/3/2012 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JMP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/4/2012 1:57:56 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/4/2012 1:57:56 PM
Surr: DNOP	82.7	77.6-140		%REC	1	10/4/2012 1:57:56 PM
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	ND	6.0		mg/Kg	20	10/8/2012 1:51:35 PM
Chloride	13000	750		mg/Kg	500	10/9/2012 9:24:23 AM
EPA METHOD 6010B: SOIL METALS						Analyst: JLF
Calcium	30000	250		mg/Kg	10	10/10/2012 10:08:30 AM
Magnesium	7300	130		mg/Kg	5	10/9/2012 10:09:34 AM
Potassium	2400	250		mg/Kg	5	10/9/2012 10:09:34 AM
Sodium	4900	130		mg/Kg	5	10/9/2012 10:09:34 AM
SM4500-H+B: PH						Analyst: KS
pH	7.59	1.68		pH Units	1	10/12/2012 1:41:00 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 1210161

Date Reported: 10/15/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: C-6

Project: Soil W of Pond 8

Collection Date: 9/27/2012 2:05:00 PM

Lab ID: 1210161-002

Matrix: SOIL

Received Date: 10/3/2012 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JMP
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/4/2012 8:30:10 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/4/2012 8:30:10 AM
Surr: DNOP	86.9	77.6-140		%REC	1	10/4/2012 8:30:10 AM
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	20	6.0		mg/Kg	20	10/8/2012 2:16:25 PM
Chloride	2200	150		mg/Kg	100	10/9/2012 9:36:48 AM
EPA METHOD 6010B: SOIL METALS						Analyst: ELS
Calcium	18000	120		mg/Kg	5	10/9/2012 10:12:05 AM
Magnesium	11000	120		mg/Kg	5	10/9/2012 10:12:05 AM
Potassium	6000	250		mg/Kg	5	10/9/2012 10:12:05 AM
Sodium	2700	120		mg/Kg	5	10/9/2012 10:12:05 AM
SM4500-H+B: PH						Analyst: KS
pH	8.04	1.68		pH Units	1	10/12/2012 1:41:00 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

Analytical Report

Lab Order 1210161

Date Reported: 10/15/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** G-S**Project:** Soil W of Pond 8**Collection Date:** 9/27/2012 2:15:00 PM**Lab ID:** 1210161-003**Matrix:** SOIL**Received Date:** 10/3/2012 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JMP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/4/2012 1:35:55 PM
Motor Oil Range Organics (MRO)	ND	52		mg/Kg	1	10/4/2012 1:35:55 PM
Surr: DNOP	105	77.6-140		%REC	1	10/4/2012 1:35:55 PM
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	ND	6.0		mg/Kg	20	10/8/2012 3:11:30 PM
Chloride	24000	1500		mg/Kg	1000	10/9/2012 9:49:13 AM
EPA METHOD 6010B: SOIL METALS						Analyst: ELS
Calcium	23000	130		mg/Kg	5	10/9/2012 10:14:32 AM
Magnesium	7000	130		mg/Kg	5	10/9/2012 10:14:32 AM
Potassium	2100	250		mg/Kg	5	10/9/2012 10:14:32 AM
Sodium	9800	130		mg/Kg	5	10/9/2012 10:14:32 AM
SM4500-H+B: PH						Analyst: KS
pH	7.53	1.68		pH Units	1	10/12/2012 1:41:00 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

Analytical Report

Lab Order 1210161

Date Reported: 10/15/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** F-6**Project:** Soil W of Pond 8**Collection Date:** 9/27/2012 2:25:00 PM**Lab ID:** 1210161-004**Matrix:** SOIL**Received Date:** 10/3/2012 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JMP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/4/2012 11:01:33 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/4/2012 11:01:33 AM
Surr: DNOP	98.9	77.6-140		%REC	1	10/4/2012 11:01:33 AM
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	ND	6.0		mg/Kg	20	10/8/2012 4:01:09 PM
Chloride	46000	1500		mg/Kg	1000	10/9/2012 10:01:38 AM
EPA METHOD 6010B: SOIL METALS						Analyst: ELS
Calcium	24000	120		mg/Kg	5	10/9/2012 10:17:05 AM
Magnesium	9500	120		mg/Kg	5	10/9/2012 10:17:05 AM
Potassium	2900	250		mg/Kg	5	10/9/2012 10:17:05 AM
Sodium	11000	120		mg/Kg	5	10/9/2012 10:17:05 AM
SM4500-H+B: PH						Analyst: KS
pH	7.33	1.68		pH Units	1	10/12/2012 1:41:00 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 1210161

Date Reported: 10/15/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: B-6

Project: Soil W of Pond 8

Collection Date: 9/27/2012 2:35:00 PM

Lab ID: 1210161-005

Matrix: SOIL

Received Date: 10/3/2012 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JMP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/7/2012 6:00:52 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/7/2012 6:00:52 AM
Surr: DNOP	91.2	77.6-140		%REC	1	10/7/2012 6:00:52 AM
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	ND	6.0		mg/Kg	20	10/8/2012 4:13:34 PM
Chloride	5800	300		mg/Kg	200	10/9/2012 10:14:03 AM
EPA METHOD 6010B: SOIL METALS						Analyst: ELS
Calcium	16000	120		mg/Kg	5	10/9/2012 10:29:37 AM
Magnesium	11000	120		mg/Kg	5	10/9/2012 10:29:37 AM
Potassium	6700	250		mg/Kg	5	10/9/2012 10:29:37 AM
Sodium	3100	120		mg/Kg	5	10/9/2012 10:29:37 AM
SM4500-H+B: PH						Analyst: KS
pH	8.05	1.68		pH Units	1	10/12/2012 1:41:00 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 1210161

Date Reported: 10/15/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: E-6

Project: Soil W of Pond 8

Collection Date: 9/27/2012 2:50:00 PM

Lab ID: 1210161-006

Matrix: SOIL

Received Date: 10/3/2012 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JMP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/4/2012 1:14:06 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/4/2012 1:14:06 PM
Surr: DNOP	99.3	77.6-140		%REC	1	10/4/2012 1:14:06 PM
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	ND	6.0		mg/Kg	20	10/8/2012 4:25:59 PM
Chloride	25000	1500		mg/Kg	1000	10/9/2012 10:26:28 AM
EPA METHOD 6010B: SOIL METALS						Analyst: JLF
Calcium	26000	250		mg/Kg	10	10/10/2012 10:10:57 AM
Magnesium	7400	130		mg/Kg	5	10/9/2012 10:33:43 AM
Potassium	2600	250		mg/Kg	5	10/9/2012 10:33:43 AM
Sodium	13000	130		mg/Kg	5	10/9/2012 10:33:43 AM
SM4500-H+B: PH						Analyst: KS
pH	7.58	1.68		pH Units	1	10/12/2012 1:41:00 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

Analytical Report

Lab Order 1210161

Date Reported: 10/15/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** A-6**Project:** Soil W of Pond 8**Collection Date:** 9/27/2012 3:15:00 PM**Lab ID:** 1210161-007**Matrix:** SOIL**Received Date:** 10/3/2012 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JMP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/4/2012 8:51:45 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/4/2012 8:51:45 AM
Surr: DNOP	99.7	77.6-140		%REC	1	10/4/2012 8:51:45 AM
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	ND	6.0		mg/Kg	20	10/8/2012 4:38:23 PM
Chloride	23000	1500		mg/Kg	1000	10/9/2012 10:38:53 AM
EPA METHOD 6010B: SOIL METALS						Analyst: ELS
Calcium	16000	130		mg/Kg	5	10/9/2012 10:36:16 AM
Magnesium	10000	130		mg/Kg	5	10/9/2012 10:36:16 AM
Potassium	5700	250		mg/Kg	5	10/9/2012 10:36:16 AM
Sodium	14000	130		mg/Kg	5	10/9/2012 10:36:16 AM
SM4500-H+B: PH						Analyst: KS
pH	7.65	1.68		pH Units	1	10/12/2012 1:41:00 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#: 1210161

15-Oct-12

Client: Western Refining Southwest, Gallup

Project: Soil W of Pond 8

Sample ID	MB-4165	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	4165	RunNo:	6064					
Prep Date:	10/8/2012	Analysis Date:	10/8/2012	SeqNo:	174669	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								

Sample ID	LCS-4165	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	4165	RunNo:	6064					
Prep Date:	10/8/2012	Analysis Date:	10/8/2012	SeqNo:	174670	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.4	0.30	1.500	0	94.9	90	110			

Sample ID	MB-4165	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	4165	RunNo:	6085					
Prep Date:	10/8/2012	Analysis Date:	10/9/2012	SeqNo:	175561	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-4165	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	4165	RunNo:	6085					
Prep Date:	10/8/2012	Analysis Date:	10/9/2012	SeqNo:	175562	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	101	90	110			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210161

15-Oct-12

Client: Western Refining Southwest, Gallup

Project: Soil W of Pond 8

Sample ID	MB-4052		SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range Organics			
Client ID:	PBS		Batch ID:	4052		RunNo:	5924			
Prep Date:	10/2/2012		Analysis Date:	10/3/2012		SeqNo:	170722		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		104	77.6	140			

Sample ID	LCS-4052		SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range Organics			
Client ID:	LCSS		Batch ID:	4052		RunNo:	5924			
Prep Date:	10/2/2012		Analysis Date:	10/3/2012		SeqNo:	170784		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.4	52.6	130			
Surr: DNOP	4.1		5.000		82.4	77.6	140			

Sample ID	MB-4148		SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range Organics			
Client ID:	PBS		Batch ID:	4148		RunNo:	6027			
Prep Date:	10/5/2012		Analysis Date:	10/6/2012		SeqNo:	173597		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		104	77.6	140			

Sample ID	LCS-4148		SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range Organics			
Client ID:	LCSS		Batch ID:	4148		RunNo:	6027			
Prep Date:	10/5/2012		Analysis Date:	10/6/2012		SeqNo:	173599		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		87.4	77.6	140			

Qualifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210161

15-Oct-12

Client: Western Refining Southwest, Gallup

Project: Soil W of Pond 8

Sample ID	MB-4137		SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range				
Client ID:	PBW		Batch ID:	4137		RunNo:	6039				
Prep Date:	10/5/2012		Analysis Date:	10/8/2012		SeqNo:	174081		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	1.1		1.000		108	79.5	166				

Sample ID	LCS-4137		SampType: LCS		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSW		Batch ID: 4137		RunNo: 6039					
Prep Date:	10/5/2012		Analysis Date: 10/8/2012		SeqNo: 174082		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.45		0.5000		90.2	79.5	166			

Sample ID	LCSD-4137	SampType:	LCSD	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	LCSS02	Batch ID:	4137	RunNo:	6039					
Prep Date:	10/5/2012	Analysis Date:	10/8/2012	SeqNo:	174083	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.45		0.5000		90.8	79.5	166	0	0	

Sample ID	MB-4170	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	PBW	Batch ID:	4170	RunNo:	6037					
Prep Date:	10/8/2012	Analysis Date:	10/8/2012	SeqNo:	174724	Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	1.1		1.000		113	79.5	166			

Sample ID	LCS-4170		SampType: LCS		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSW		Batch ID: 4170		RunNo: 6037					
Prep Date:	10/8/2012		Analysis Date: 10/8/2012		SeqNo: 174725		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.50		0.5000		101	79.5	166			

Sample ID	LCSD-4170	SampType:	LCSD	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	LCSS02	Batch ID:	4170	RunNo:	6037					
Prep Date:	10/8/2012	Analysis Date:	10/8/2012	SeqNo:	174726	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.52		0.5000		103	79.5	166	0	0	

Qualifiers:

Value exceeds Maximum Contaminant Level.

Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210161

15-Oct-12

Client: Western Refining Southwest, Gallup

Project: Soil W of Pond 8

Sample ID	MB-4166		SampType:	MBLK		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	PBS		Batch ID:	4166		RunNo:	6088				
Prep Date:	10/8/2012		Analysis Date:	10/9/2012		SeqNo:	175617		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Calcium	ND	25									
Magnesium	ND	25									
Potassium	ND	50									
Sodium	ND	25									

Sample ID	LCS-4166		SampType: LCS		TestCode: EPA Method 6010B: Soil Metals					
Client ID:	LCSS		Batch ID: 4166		RunNo: 6088					
Prep Date:	10/8/2012		Analysis Date: 10/9/2012		SeqNo: 175618		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	2600	25	2500	0	104	80	120			
Magnesium	2600	25	2500	0	105	80	120			
Potassium	2500	50	2500	0	101	80	120			
Sodium	2600	25	2500	0	104	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

- 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



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87106
TEL: 505-345-3975 FAX: 505-345-4101
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name:	Western Refining Gallup	Work Order Number:	1210161
Received by/date:	LM 10/03/12		
Logged By:	Michelle Garcia	10/3/2012 7:30:00 AM	Michelle Garcia
Completed By:	Michelle Garcia	10/3/2012 8:43:28 AM	Michelle Garcia
Reviewed By:	mj/10/03/12		

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
10. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
15. Is it clear what analyses were requested? Yes ☒ No ☐
16. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified:	Alvin Dorsey	Date:	10/03/12
By Whom:	Ashley Ballings	Via:	☐ eMail ☒ Phone ☐ Fax ☐ In Person
Regarding:	Missing Sample -005		
Client Instructions:	will receive 10/05/12		

18. Additional remarks:

RECEIVED -005 OK 10/05/12 AT 0645 10/05/12

19. Cooler Information

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

Cr 1-of-Custody Record

Client: WESTERN REFINING

GALLUP REFINERY

Mailing Address: Route 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)

Project Manager:

Cheryl Johnson

Cheryl.johnson@wnr.com

Sampler: C. Johnson

On Site ☒ Yes ☐ No

Sample Temperature

Date

Time

Matrix

Sample Request ID

Container Type and #

Preservative Type

HEAL No

12/01/03

-001

-002

-003

-004

-005

-006

-007

-008

-009

-010

-011

-012

-013

-014

-015

-016

-017

-018

-019

-020

-021

-022

-023

-024

-025

-026

-027

-028

-029

-030

-031

-032

-033

-034

-035

-036

-037

-038

-039

-040

-041

-042

-043

-044

-045

-046

-047

-048

-049

-050

-051

-052

-053

-054

-055

-056

-057

-058

-059

-060

-061

-062

-063

-064

-065

-066

-067

-068

-069

-070

-071

-072

-073

-074

-075

-076

-077

-078

-079

-080

-081

-082

-083

-084

-085

-086

-087

-088

-089

-090

-091

-092

-093

-094

-095

-096

-097

-098

-099

-100

-101

-102

-103

-104

-105

-106

-107

-108

-109

-110

-111

-112

-113

-114

-115

-116

-117

-118

-119

-120

-121

-122

-123

-124

-125

-126

-127

-128

-129

-130

-131

-132

-133

-134

-135

-136

-137

-138

-139

-140

-141

-142

-143

-144

-145

-146

-147

-148

-149

-150

-151

-152

-153

-154

-155

-156

-157

-158

-159

-160

-161

-162

-163

-164

-165

-166

-167

-168

-169

-170

-171

-172

-173

-174

-175

-176

-177

-178

-179

-180

-181

-182

-183

-184

-185

-186

-187

-188

-189

-190

-191

-192

-193

-194

-195

-196

-197

-198

-199

-200

-201

-202

-203

-204

-205

-206

-207

-208

-209

-210

-211

-212

-213

-214

-215

-216

-217

-218

-219

-220

-221

-222

-223

-224

-225

-226

-227

-228

-229

-230

-231

-232

-233

-234

-235

-236

-237

-238

-239

-240

-241

-242

-243

-244

-245

-246

-247

-248

-249

-250

-251

-252

-253

-254

-255

-256

-257

-258

-259

-260

-261

-262

-263

-264

-265

-266

-267

-268

-269

-270

-271

-272

-273

-274

-275

-276

-277

-278

-279

-280

-281</



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

October 29, 2012

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 3rd Qtr

OrderNo.: 1210333

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/5/2012 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

Analytical Report

Lab Order 1210333

Date Reported: 10/29/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 3rd Qtr

Collection Date: 10/2/2012 9:15:00 AM

Lab ID: 1210333-001

Matrix: AQUEOUS

Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/8/2012 5:22:24 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/8/2012 5:22:24 PM
Surr: DNOP	118	79.5-166		%REC	1	10/8/2012 5:22:24 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/9/2012 12:27:40 AM
Surr: BFB	124	69.8-119	S	%REC	1	10/9/2012 12:27:40 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	10/9/2012 12:27:40 AM
Benzene	ND	1.0		µg/L	1	10/9/2012 12:27:40 AM
Toluene	ND	1.0		µg/L	1	10/9/2012 12:27:40 AM
Ethylbenzene	ND	1.0		µg/L	1	10/9/2012 12:27:40 AM
Xylenes, Total	ND	2.0		µg/L	1	10/9/2012 12:27:40 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/9/2012 12:27:40 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/9/2012 12:27:40 AM
Surr: 4-Bromofluorobenzene	117	69.7-152		%REC	1	10/9/2012 12:27:40 AM
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	0.84	0.50		mg/L	5	10/5/2012 10:27:46 PM
Chloride	990	50		mg/L	100	10/13/2012 5:07:21 PM
Bromide	4.9	0.50		mg/L	5	10/5/2012 10:27:46 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	10/5/2012 10:27:46 PM
Sulfate	400	10		mg/L	20	10/5/2012 10:40:10 PM
Nitrate+Nitrite as N	20	1.0	*	mg/L	5	10/18/2012 3:43:00 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.11	0.0020		mg/L	1	10/8/2012 10:13:03 AM
Cadmium	ND	0.0020		mg/L	1	10/8/2012 10:13:03 AM
Calcium	51	1.0		mg/L	1	10/8/2012 10:13:03 AM
Chromium	ND	0.0060		mg/L	1	10/8/2012 10:13:03 AM
Copper	ND	0.0060		mg/L	1	10/8/2012 10:13:03 AM
Iron	3.2	0.10	*	mg/L	5	10/8/2012 10:16:54 AM
Lead	ND	0.0050		mg/L	1	10/9/2012 3:58:39 PM
Magnesium	7.5	1.0		mg/L	1	10/8/2012 10:13:03 AM
Manganese	0.14	0.0020	*	mg/L	1	10/8/2012 10:13:03 AM
Potassium	4.0	1.0		mg/L	1	10/8/2012 10:13:03 AM
Silver	ND	0.0050		mg/L	1	10/8/2012 10:13:03 AM
Sodium	890	10		mg/L	10	10/8/2012 12:16:42 PM
Zinc	0.035	0.010		mg/L	1	10/9/2012 3:58:39 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Barium	0.18	0.0020		mg/L	1	10/12/2012 2:00:04 PM
Cadmium	ND	0.0020		mg/L	1	10/12/2012 2:00:04 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 1210333

Date Reported: 10/29/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 3rd Qtr

Collection Date: 10/2/2012 9:15:00 AM

Lab ID: 1210333-001

Matrix: AQUEOUS

Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: TOTAL METALS						Analyst: ELS
Chromium	ND	0.0060		mg/L	1	10/12/2012 2:00:04 PM
Copper	ND	0.0060		mg/L	1	10/12/2012 2:00:04 PM
Iron	1.8	0.10	*	mg/L	5	10/12/2012 2:03:33 PM
Lead	ND	0.0050		mg/L	1	10/12/2012 2:00:04 PM
Manganese	0.11	0.0020	*	mg/L	1	10/12/2012 2:00:04 PM
Silver	ND	0.0050		mg/L	1	10/12/2012 2:00:04 PM
Zinc	0.020	0.010		mg/L	1	10/12/2012 2:00:04 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0040	0.0010		mg/L	1	10/11/2012 4:09:13 PM
Selenium	0.013	0.0010		mg/L	1	10/11/2012 4:09:13 PM
Uranium	0.038	0.0010	*	mg/L	1	10/11/2012 4:09:13 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0042	0.0025		mg/L	2.5	10/16/2012 6:02:22 PM
Selenium	0.016	0.0025		mg/L	2.5	10/19/2012 1:47:20 PM
Uranium	0.037	0.0025	*	mg/L	2.5	10/16/2012 6:02:22 PM
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	ND	0.00020		mg/L	1	10/15/2012 6:40:29 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Acenaphthylene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Aniline	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Anthracene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Azobenzene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Benz(a)anthracene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Benzoic acid	ND	20		µg/L	1	10/11/2012 8:41:43 PM
Benzyl alcohol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/11/2012 8:41:43 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Carbazole	ND	10		µg/L	1	10/11/2012 8:41:43 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
4-Chloroaniline	ND	10		µg/L	1	10/11/2012 8:41:43 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/11/2012 8:41:43 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

Analytical Report

Lab Order 1210333

Date Reported: 10/29/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 3rd Qtr

Collection Date: 10/2/2012 9:15:00 AM

Lab ID: 1210333-001

Matrix: AQUEOUS

Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chlorophenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Chrysene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Di-n-octyl phthalate	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Dibenzofuran	ND	10		µg/L	1	10/11/2012 8:41:43 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Diethyl phthalate	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Dimethyl phthalate	ND	10		µg/L	1	10/11/2012 8:41:43 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/11/2012 8:41:43 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/11/2012 8:41:43 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/11/2012 8:41:43 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Fluoranthene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Fluorene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Hexachlorobenzene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Hexachloroethane	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Isophorone	ND	10		µg/L	1	10/11/2012 8:41:43 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
2-Methylphenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
3+4-Methylphenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/11/2012 8:41:43 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/11/2012 8:41:43 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Naphthalene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
2-Nitroaniline	ND	10		µg/L	1	10/11/2012 8:41:43 PM
3-Nitroaniline	ND	10		µg/L	1	10/11/2012 8:41:43 PM
4-Nitroaniline	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Nitrobenzene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
2-Nitrophenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
4-Nitrophenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Pentachlorophenol	ND	20		µg/L	1	10/11/2012 8:41:43 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

Analytical Report

Lab Order 1210333

Date Reported: 10/29/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 3rd Qtr

Collection Date: 10/2/2012 9:15:00 AM

Lab ID: 1210333-001

Matrix: AQUEOUS

Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenanthrene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Phenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Pyrene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Pyridine	ND	10		µg/L	1	10/11/2012 8:41:43 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Surr: 2,4,6-Tribromophenol	84.0	44.2-126		%REC	1	10/11/2012 8:41:43 PM
Surr: 2-Fluorobiphenyl	75.1	37-114		%REC	1	10/11/2012 8:41:43 PM
Surr: 2-Fluorophenol	58.1	23.4-98		%REC	1	10/11/2012 8:41:43 PM
Surr: 4-Terphenyl-d14	65.5	41.3-116		%REC	1	10/11/2012 8:41:43 PM
Surr: Nitrobenzene-d5	77.8	39.5-118		%REC	1	10/11/2012 8:41:43 PM
Surr: Phenol-d5	47.3	20.9-95.9		%REC	1	10/11/2012 8:41:43 PM
SM4500-H+B: PH						Analyst: JML
pH	7.86	1.68	H	pH units	1	10/5/2012 6:09:58 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#: 1210333

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R6057	RunNo:	6057					
Prep Date:		Analysis Date:	10/8/2012	SeqNo:	174476	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:	R6057	RunNo:	6057					
Prep Date:		Analysis Date:	10/8/2012	SeqNo:	174477	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			
Calcium	53	1.0	50.00	0	105	85	115			
Chromium	0.51	0.0060	0.5000	0	102	85	115			
Copper	0.50	0.0060	0.5000	0	100	85	115			
Iron	0.54	0.020	0.5000	0.002550	107	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.50	0.0020	0.5000	0	99.9	85	115			
Potassium	51	1.0	50.00	0	101	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			
Sodium	51	1.0	50.00	0	102	85	115			

Sample ID	1210352-008AMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R6057	RunNo:	6057					
Prep Date:		Analysis Date:	10/8/2012	SeqNo:	174504	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.60	0.0020	0.5000	0.05952	108	70	130			
Cadmium	0.54	0.0020	0.5000	0	109	70	130			
Chromium	0.54	0.0060	0.5000	0.001400	108	70	130			
Copper	0.53	0.0060	0.5000	0	106	70	130			
Iron	0.60	0.020	0.5000	0.02583	114	70	130			
Magnesium	72	1.0	50.00	16.11	112	70	130			
Manganese	0.54	0.0020	0.5000	0.008360	106	70	130			
Potassium	58	1.0	50.00	3.952	108	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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210333

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID	1210352-008AMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R6057	RunNo:	6057					
Prep Date:		Analysis Date:	10/8/2012	SeqNo:	174504	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	102	70	130			
Sodium	71	1.0	50.00	16.66	109	70	130			

Sample ID	1210352-008AMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R6057	RunNo:	6057					
Prep Date:		Analysis Date:	10/8/2012	SeqNo:	174505	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.61	0.0020	0.5000	0.05952	109	70	130	1.49	20	
Cadmium	0.56	0.0020	0.5000	0	111	70	130	2.02	20	
Chromium	0.55	0.0060	0.5000	0.001400	110	70	130	1.83	20	
Copper	0.55	0.0060	0.5000	0	109	70	130	2.73	20	
Iron	0.58	0.020	0.5000	0.02583	110	70	130	3.40	20	
Magnesium	69	1.0	50.00	16.11	105	70	130	4.73	20	
Manganese	0.55	0.0020	0.5000	0.008360	108	70	130	2.09	20	
Potassium	56	1.0	50.00	3.952	103	70	130	4.26	20	
Silver	0.10	0.0050	0.1000	0	104	70	130	2.25	20	
Uranium	68	1.0	50.00	16.66	103	70	130	4.55	20	

Sample ID	1210352-008AMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R6057	RunNo:	6057					
Prep Date:		Analysis Date:	10/8/2012	SeqNo:	174507	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	360	5.0	250.0	96.81	106	70	130			

Sample ID	1210352-008AMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R6057	RunNo:	6057					
Prep Date:		Analysis Date:	10/8/2012	SeqNo:	174508	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	380	5.0	250.0	96.81	112	70	130	4.19	20	

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R6122	RunNo:	6122					
Prep Date:		Analysis Date:	10/9/2012	SeqNo:	176415	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0050								
Zinc	ND	0.010								

Qualifiers:

- | | | |
|--|----|--|
| Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| Value above quantitation range | 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 |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210333

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R6122		RunNo: 6122					
Prep Date:			Analysis Date: 10/9/2012		SeqNo: 176416		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.51	0.0050	0.5000	0	101	85	115			
Zinc	0.50	0.010	0.5000	0	99.2	85	115			

Sample ID	1210352-008AMS		SampType:	MS		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R6122		RunNo:	6122				
Prep Date:			Analysis Date:	10/9/2012		SeqNo:	176434		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Zinc	0.51	0.010	0.5000	0.009450	99.7	70	130				

Sample ID	1210352-008AMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R6122		RunNo:	6122				
Prep Date:			Analysis Date:	10/9/2012		SeqNo:	176435		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Zinc	0.50	0.010	0.5000	0.009450	98.6	70	130	1.10	20		

Qualifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210333

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID	1210352-009BMS		SampType: MS	TestCode: EPA Method 200.7: Total Metals						
Client ID:	BatchQC		Batch ID: 4246	RunNo: 6212						
Prep Date:	10/11/2012		Analysis Date: 10/12/2012	SeqNo: 179002		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0.02413	100	70	130			
Cadmium	0.51	0.0020	0.5000	0	102	70	130			
Chromium	0.44	0.0060	0.5000	0	88.0	70	130			
Copper	0.52	0.0060	0.5000	0	105	70	130			
Iron	0.72	0.020	0.5000	0.2063	103	70	130			
Manganese	0.50	0.0020	0.5000	0.001060	100	70	130			
Silver	0.037	0.0050	0.1000	0	36.7	70	130			S
Zinc	0.45	0.010	0.5000	0.007820	88.5	70	130			

Sample ID	1210352-009BMSD		SampType: MSD	TestCode: EPA Method 200.7: Total Metals						
Client ID:	BatchQC		Batch ID: 4246	RunNo: 6212						
Prep Date:	10/11/2012		Analysis Date: 10/12/2012	SeqNo: 179003		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0.02413	101	70	130	0.406	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	0.734	20	
Chromium	0.44	0.0060	0.5000	0	88.5	70	130	0.535	20	
Copper	0.53	0.0060	0.5000	0	105	70	130	0.641	20	
Iron	0.73	0.020	0.5000	0.2063	104	70	130	0.688	20	
Manganese	0.51	0.0020	0.5000	0.001060	101	70	130	0.574	20	
Silver	0.039	0.0050	0.1000	0	38.8	70	130	5.43	20	S
Zinc	0.45	0.010	0.5000	0.007820	89.3	70	130	0.865	20	

Sample ID	MB-4246		SampType: MBLK	TestCode: EPA Method 200.7: Total Metals						
Client ID:	PBW		Batch ID: 4246	RunNo: 6212						
Prep Date:	10/11/2012		Analysis Date: 10/12/2012	SeqNo: 179023		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.

Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210333

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID	LCS-4246		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 4246		RunNo: 6212					
Prep Date:	10/11/2012		Analysis Date: 10/12/2012		SeqNo: 179024		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	0.52	0.0020	0.5000	0	103	85	115			
Chromium	0.50	0.0060	0.5000	0	99.9	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.50	0.020	0.5000	0	99.6	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	98.2	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			
Zinc	0.50	0.010	0.5000	0	101	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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210333

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID	1210284-003DMS			SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	BatchQC			Batch ID:	R6175		RunNo:	6175			
Prep Date:				Analysis Date:	10/11/2012		SeqNo:	178025		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.047	0.0010	0.02500	0.02279	97.9	70	130				

Sample ID	LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID: R6175			RunNo: 6175					
Prep Date:		Analysis Date: 10/11/2012			SeqNo: 178034		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	106	85	115			
Selenium	0.027	0.0010	0.02500	0	109	85	115			
Uranium	0.026	0.0010	0.02500	0	106	85	115			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R6175	RunNo:	6175					
Prep Date:		Analysis Date:	10/11/2012	SeqNo:	178035	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	111	85	115			
Uranium	0.027	0.0010	0.02500	0	110	85	115			

Sample ID	MB	SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	PBW	Batch ID:	R6175		RunNo:	6175				
Prep Date:		Analysis Date:	10/11/2012		SeqNo:	178036	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:	R6175		RunNo:	6175				
Prep Date:		Analysis Date:	10/11/2012		SeqNo:	178037	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.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210333

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID	MB-4246		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	PBW		Batch ID:	4246		RunNo:	6277			
Prep Date:	10/11/2012		Analysis Date:	10/16/2012		SeqNo:	180858		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								
Uranium	ND	0.0025								

Sample ID	MB-4246		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	PBW		Batch ID:	4246		RunNo:	6368			
Prep Date:	10/11/2012		Analysis Date:	10/19/2012		SeqNo:	183137		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								
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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210333

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID	MB-4303	SampType:	mblk	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	4303	RunNo:	6268					
Prep Date:	10/15/2012	Analysis Date:	10/15/2012	SeqNo:	180618	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-4303	SampType:	lcs	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	4303	RunNo:	6268					
Prep Date:	10/15/2012	Analysis Date:	10/15/2012	SeqNo:	180619	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	95.8	80	120			

Sample ID	1210352-007BMS	SampType:	ms	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	4303	RunNo:	6268					
Prep Date:	10/15/2012	Analysis Date:	10/15/2012	SeqNo:	180639	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	93.6	75	125			

Sample ID	1210352-007BMSD	SampType:	msd	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	4303	RunNo:	6268					
Prep Date:	10/15/2012	Analysis Date:	10/15/2012	SeqNo:	180642	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	94.2	75	125	0.680	20	

Qualifiers:

Value exceeds Maximum Contaminant Level.
Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210333

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R6050	RunNo:	6050					
Prep Date:		Analysis Date:	10/5/2012	SeqNo:	174302	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R6050	RunNo:	6050					
Prep Date:		Analysis Date:	10/5/2012	SeqNo:	174303	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			
Bromide	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.5	90	110			
Sulfate	9.5	0.50	10.00	0	95.1	90	110			

Sample ID	1210360-001AMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R6050	RunNo:	6050					
Prep Date:		Analysis Date:	10/5/2012	SeqNo:	174315	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.56	0.10	0.5000	0	111	76.6	110			S
Bromide	2.5	0.10	2.500	0	99.1	83.3	107			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	93.0	74.5	115			
Sulfate	27	0.50	10.00	15.93	115	84.6	122			

Sample ID	1210360-001AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R6050	RunNo:	6050					
Prep Date:		Analysis Date:	10/5/2012	SeqNo:	174316	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.56	0.10	0.5000	0	113	76.6	110	1.59	20	S
Bromide	2.6	0.10	2.500	0	102	83.3	107	3.16	20	
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.2	74.5	115	2.34	20	
Sulfate	28	0.50	10.00	15.93	117	84.6	122	0.709	20	

Sample ID	1210367-001AMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R6050	RunNo:	6050					
Prep Date:		Analysis Date:	10/5/2012	SeqNo:	174334	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.7	0.10	2.500	0.1983	98.9	83.3	107			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.7	74.5	115			

Qualifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210333

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID	1210367-001AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R6050	RunNo:	6050					
Prep Date:		Analysis Date:	10/6/2012	SeqNo:	174335	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.7	0.10	2.500	0.1983	98.9	83.3	107	0.0711	20	
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.2	74.5	115	0.539	20	

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R6225	RunNo:	6225					
Prep Date:		Analysis Date:	10/13/2012	SeqNo:	179335	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:	R6225	RunNo:	6225					
Prep Date:		Analysis Date:	10/13/2012	SeqNo:	179336	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:	R6320	RunNo:	6320					
Prep Date:		Analysis Date:	10/17/2012	SeqNo:	182026	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:	R6320	RunNo:	6320					
Prep Date:		Analysis Date:	10/17/2012	SeqNo:	182027	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	97.8	90	110			

Qualifiers:

V Value exceeds Maximum Contaminant Level.

A Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210333

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID	MB-4170		SampType: MBLK		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	PBW		Batch ID: 4170		RunNo: 6037					
Prep Date:	10/8/2012		Analysis Date: 10/8/2012		SeqNo: 174724		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		113	79.5	166			

Sample ID	LCS-4170		SampType: LCS		TestCode: EPA Method 8015B: Diesel Range					
Client ID:	LCSW		Batch ID: 4170		RunNo: 6037					
Prep Date:	10/8/2012		Analysis Date: 10/8/2012		SeqNo: 174725		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	3.8	1.0	5.000	0	75.1	74	157			
Surr: DNOP	0.50		0.5000		101	79.5	166			

Sample ID	LCSD-4170	SampType:	LCSD	TestCode:	EPA Method 8015B: Diesel Range					
Client ID:	LCSS02	Batch ID:	4170	RunNo:	6037					
Prep Date:	10/8/2012	Analysis Date:	10/8/2012	SeqNo:	174726	Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.0	1.0	5.000	0	80.9	74	157	7.55	23	
Surr: DNOP	0.52		0.5000		103	79.5	166	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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210333

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBW	Batch ID:	R6074	RunNo:	6074					
Prep Date:		Analysis Date:	10/8/2012	SeqNo:	175153	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	20		20.00		99.3	69.8	119			

Sample ID	2.5UG GRO LCSB	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSW	Batch ID:	R6074	RunNo:	6074					
Prep Date:		Analysis Date:	10/8/2012	SeqNo:	175154	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	93.3	75.9	119			
Surr: BFB	16		20.00		81.2	69.8	119			

Sample ID	1210333-001AMS		SampType:	MS		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	NAPIS-3		Batch ID:	R6074		RunNo:	6074				
Prep Date:			Analysis Date:	10/9/2012		SeqNo:	175202		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	63.5	131				
Surr: BFB	23		20.00		117	69.8	119				

Sample ID	1210333-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	NAPIS-3	Batch ID:	R6074	RunNo:	6074					
Prep Date:		Analysis Date:	10/9/2012	SeqNo:	175203	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	95.0	63.5	131	2.99	16.7	
Surr: BFB	24		20.00		122	69.8	119	0	0	S

Qualifiers:

- ~ Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210333

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID:	R6074	RunNo:	6074					
Prep Date:		Analysis Date:	10/8/2012	SeqNo:	175210	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	69.7	152			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	R6074	RunNo:	6074					
Prep Date:		Analysis Date:	10/8/2012	SeqNo:	175211	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18	2.5	20.00	0	91.1	66.9	136			
Benzene	19	1.0	20.00	0	96.8	80	120			
Toluene	20	1.0	20.00	0	101	80	120			
Ethylbenzene	21	1.0	20.00	0	104	80	120			
Xylenes, Total	63	2.0	60.00	0	105	80	120			
1,2,4-Trimethylbenzene	19	1.0	20.00	0	96.4	74.3	117			
1,3,5-Trimethylbenzene	21	1.0	20.00	0	103	75.8	117			
Surr: 4-Bromofluorobenzene	25		20.00		124	69.7	152			

Sample ID	1210365-003AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BatchQC	Batch ID:	R6074	RunNo:	6074					
Prep Date:		Analysis Date:	10/9/2012	SeqNo:	175220	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	93.0	45.1	137			
Benzene	20	1.0	20.00	0	97.7	74.1	124			
Toluene	20	1.0	20.00	0.3000	99.0	75.2	124			
Ethylbenzene	21	1.0	20.00	0.2420	101	69	125			
Xylenes, Total	62	2.0	60.00	0.4080	102	73.1	126			
1,2,4-Trimethylbenzene	19	1.0	20.00	0.1940	92.4	63.1	121			
1,3,5-Trimethylbenzene	20	1.0	20.00	0.1500	98.2	60	133			
Surr: 4-Bromofluorobenzene	24		20.00		120	69.7	152			

Sample ID	1210365-003AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BatchQC	Batch ID:	R6074	RunNo:	6074					
Prep Date:		Analysis Date:	10/9/2012	SeqNo:	175221	Units:	µg/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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210333

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID	1210365-003AMSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles					
Client ID:	BatchQC		Batch ID: R6074		RunNo: 6074					
Prep Date:			Analysis Date: 10/9/2012		SeqNo: 175221		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	93.1	45.1	137	0.0967	13.6	
Benzene	20	1.0	20.00	0	98.4	74.1	124	0.754	11.2	
Toluene	20	1.0	20.00	0.3000	98.6	75.2	124	0.399	11.9	
Ethylbenzene	20	1.0	20.00	0.2420	100	69	125	0.862	13.5	
Xylenes, Total	61	2.0	60.00	0.4080	101	73.1	126	1.08	13	
1,2,4-Trimethylbenzene	18	1.0	20.00	0.1940	90.6	63.1	121	1.95	14.7	
1,3,5-Trimethylbenzene	20	1.0	20.00	0.1500	97.5	60	133	0.710	14	
Surr: 4-Bromofluorobenzene	25		20.00		123	69.7	152	0	0	

Qualifiers:

Value exceeds Maximum Contaminant Level.
Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210333

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID	mb-4189	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	4189	RunNo:	6186					
Prep Date:	10/9/2012	Analysis Date:	10/11/2012	SeqNo:	178221	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								
2,6-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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210333

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID	mb-4189		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 4189		RunNo: 6186					
Prep Date:	10/9/2012		Analysis Date: 10/11/2012		SeqNo: 178221		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
o-aniline	ND	10								
p-aniline	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	170		200.0		87.2	44.2	126			
Surr: 2-Fluorobiphenyl	66		100.0		66.3	37	114			
Surr: 2-Fluorophenol	140		200.0		70.4	23.4	98			
Surr: 4-Terphenyl-d14	73		100.0		72.8	41.3	116			
Surr: Nitrobenzene-d5	86		100.0		86.0	39.5	118			
Surr: Phenol-d5	100		200.0		52.1	20.9	95.9			

Qualifiers:

Value exceeds Maximum Contaminant Level.
Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210333

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID	lcs-4189		SampType: LCS	TestCode: EPA Method 8270C: Semivolatiles						
Client ID:	LCSW		Batch ID: 4189	RunNo: 6186						
Prep Date:	10/9/2012		Analysis Date: 10/11/2012	SeqNo: 178222		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	64	10	100.0	0	63.6	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	78.0	35.5	108			
2-Chlorophenol	140	10	200.0	0	69.7	29.8	106			
1,4-Dichlorobenzene	60	10	100.0	0	60.1	32.6	91.5			
2,4-Dinitrotoluene	85	10	100.0	0	84.9	44.7	112			
N-Nitrosodi-n-propylamine	84	10	100.0	0	83.9	38.5	105			
4-Nitrophenol	100	10	200.0	0	50.2	11.6	73.1			
Pentachlorophenol	120	20	200.0	0	62.2	20.2	93			
Phenol	84	10	200.0	0	42.1	23	66.1			
Pyrene	68	10	100.0	0	67.8	40.1	101			
1,2,4-Trichlorobenzene	65	10	100.0	0	64.8	37.7	99.1			
Surr: 2,4,6-Tribromophenol	180		200.0		89.1	44.2	126			
Surr: 2-Fluorobiphenyl	72		100.0		71.9	37	114			
Surr: 2-Fluorophenol	120		200.0		58.5	23.4	98			
Surr: 4-Terphenyl-d14	73		100.0		72.9	41.3	116			
Surr: Nitrobenzene-d5	79		100.0		78.7	39.5	118			
Surr: Phenol-d5	97		200.0		48.5	20.9	95.9			

Sample ID	lcsd-4189		SampType: LCSD	TestCode: EPA Method 8270C: Semivolatiles						
Client ID:	LCSS02		Batch ID: 4189	RunNo: 6186						
Prep Date:	10/9/2012		Analysis Date: 10/11/2012	SeqNo: 178223		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	66.9	38.2	99.4	5.09	20	
4-Chloro-3-methylphenol	160	10	200.0	0	80.0	35.5	108	2.51	20	
2-Chlorophenol	130	10	200.0	0	66.7	29.8	106	4.41	20	
1,4-Dichlorobenzene	58	10	100.0	0	57.9	32.6	91.5	3.73	20	
2,4-Dinitrotoluene	88	10	100.0	0	87.8	44.7	112	3.45	20	
N-Nitrosodi-n-propylamine	77	10	100.0	0	76.7	38.5	105	8.99	20	
4-Nitrophenol	100	10	200.0	0	52.4	11.6	73.1	4.27	20	
Pentachlorophenol	120	20	200.0	0	60.4	20.2	93	2.94	20	
Phenol	89	10	200.0	0	44.4	23	66.1	5.20	20	
Pyrene	69	10	100.0	0	69.2	40.1	101	2.10	20	
1,2,4-Trichlorobenzene	63	10	100.0	0	62.7	37.7	99.1	3.29	20	
Surr: 2,4,6-Tribromophenol	170		200.0		82.5	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	68		100.0		67.8	37	114	0	0	
Surr: 2-Fluorophenol	120		200.0		59.0	23.4	98	0	0	
Surr: 4-Terphenyl-d14	69		100.0		68.7	41.3	116	0	0	
Surr: Nitrobenzene-d5	75		100.0		75.3	39.5	118	0	0	
Surr: Phenol-d5	97		200.0		48.7	20.9	95.9	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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210333

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID	1210312-001d dup	SampType:	dup	TestCode:	SM4500-H+B: pH					
Client ID:	BatchQC	Batch ID:	R6035	RunNo:	6035					
Prep Date:		Analysis Date:	10/5/2012	SeqNo:	173977	Units:	pH units			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.74	1.68								H

Sample ID	1210333-001d dup	SampType:	dup	TestCode:	SM4500-H+B: pH					
Client ID:	NAPIS-3	Batch ID:	R6035	RunNo:	6035					
Prep Date:		Analysis Date:	10/5/2012	SeqNo:	173980	Units:	pH units			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.89	1.68								H

Sample ID	1210345-002b dup	SampType:	dup	TestCode:	SM4500-H+B: pH					
Client ID:	BatchQC	Batch ID:	R6035	RunNo:	6035					
Prep Date:		Analysis Date:	10/5/2012	SeqNo:	184408	Units:	pH units			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.48	1.68								H

Qualifiers:

Value exceeds Maximum Contaminant Level.
Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2

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



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: 1210333

Received by/date:

Logged By: Lindsay Mangin

10/05/12
10/5/2012 6:45:00 AM

Completed By: Lindsay Mangin

10/5/2012 2:55:40 PM

Reviewed By: *mg*

10/05/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No NA
5. Was an attempt made to cool the samples? Yes ☒ No NA
6. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No NA
7. Sample(s) in proper container(s)? Yes ☒ No
8. Sufficient sample volume for indicated test(s)? Yes ☒ No
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No
10. Was preservative added to bottles? Yes No ☒ NA
11. VOA vials have zero headspace? Yes ☒ No No VOA Vials
12. Were any sample containers received broken? Yes No ☒
13. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No # of preserved bottles checked for pH: 23
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No Adjusted? (2 or >12 unless noted)
15. Is it clear what analyses were requested? Yes ☒ No
16. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No Checked by: *[Signature]*

Special Handling (if applicable)

17. 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:

18. Additional remarks:

19. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Yes			



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

November 19, 2012

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 2012 Semi-Annual-Ponds

OrderNo.: 1211301

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 12 sample(s) on 11/7/2012 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

Analytical Report

Lab Order 1211301

Date Reported: 11/19/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** EP-1**Project:** 2012 Semi-Annual-Ponds**Collection Date:** 11/7/2012 8:00:00 AM**Lab ID:** 1211301-001**Matrix:** AQUEOUS**Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	520	2.0		mg/L	1	11/13/2012 4:36:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: ECH
E. Coli	10462	10		CFU/100ml	10	11/8/2012 4:30:00 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 1211301

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2012 Semi-Annual-Ponds

Collection Date: 11/7/2012 8:10:00 AM

Lab ID: 1211301-002

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	750	2.0		mg/L	1	11/13/2012 4:36:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: ECH
E. Coli	<10	10		CFU/100ml	10	11/8/2012 4:30:00 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

Analytical Report

Lab Order 1211301

Date Reported: 11/19/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** EP-3**Project:** 2012 Semi-Annual-Ponds**Collection Date:** 11/7/2012 8:20:00 AM**Lab ID:** 1211301-003**Matrix:** AQUEOUS**Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	390	2.0		mg/L	1	11/13/2012 4:36:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: ECH
E. Coli	10	10		CFU/100ml	10	11/8/2012 4:30:00 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 1211301

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2012 Semi-Annual-Ponds

Collection Date: 11/7/2012 8:30:00 AM

Lab ID: 1211301-004

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	230	2.0		mg/L	1	11/13/2012 4:36:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: ECH
E. Coli	<10	10		CFU/100ml	10	11/8/2012 4:30:00 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

Analytical Report

Lab Order 1211301

Date Reported: 11/19/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** EP-5**Project:** 2012 Semi-Annual-Ponds**Collection Date:** 11/7/2012 8:40:00 AM**Lab ID:** 1211301-005**Matrix:** AQUEOUS**Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	150	2.0		mg/L	1	11/13/2012 4:36:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: ECH
E. Coli	<10	10		CFU/100ml	10	11/8/2012 4:30:00 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 1211301

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2012 Semi-Annual-Ponds

Collection Date: 11/7/2012 8:50:00 AM

Lab ID: 1211301-006

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	10	2.0		mg/L	1	11/13/2012 4:36:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: ECH
E. Coli	<1	1.0		CFU/100ml	1	11/8/2012 4:30:00 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

Analytical ReportLab Order **1211301**Date Reported: **11/19/2012****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** EP-7**Project:** 2012 Semi-Annual-Ponds**Collection Date:** 11/7/2012 9:00:00 AM**Lab ID:** 1211301-007**Matrix:** AQUEOUS**Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	21	2.0		mg/L	1	11/13/2012 4:36:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: ECH
E. Coli	<1	1.0		CFU/100ml	1	11/8/2012 4:30:00 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 1211301

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2012 Semi-Annual-Ponds

Collection Date: 11/7/2012 9:10:00 AM

Lab ID: 1211301-008

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	10	2.0		mg/L	1	11/13/2012 4:36:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: ECH
E. Coli	<10	10		CFU/100ml	10	11/8/2012 4:30:00 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

Analytical Report

Lab Order 1211301

Date Reported: 11/19/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** EP-9**Project:** 2012 Semi-Annual-Ponds**Collection Date:** 11/7/2012 10:00:00 AM**Lab ID:** 1211301-009**Matrix:** AQUEOUS**Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	7.9	2.0		mg/L	1	11/13/2012 4:36:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: ECH
E. Coli	<1	1.0		CFU/100ml	1	11/8/2012 4:30:00 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 1211301

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2012 Semi-Annual-Ponds

Collection Date: 11/7/2012 9:20:00 AM

Lab ID: 1211301-010

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	130	2.0		mg/L	1	11/14/2012 6:07:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: ECH
E. Coli	<10	10		CFU/100ml	10	11/8/2012 4:30:00 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

Analytical ReportLab Order **1211301**Date Reported: **11/19/2012****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** EP-12A**Project:** 2012 Semi-Annual-Ponds**Collection Date:** 11/7/2012 9:30:00 AM**Lab ID:** 1211301-011**Matrix:** AQUEOUS**Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	150	2.0		mg/L	1	11/14/2012 6:07:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: ECH
E. Coli	<10	10		CFU/100ml	10	11/8/2012 4:30:00 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 1211301

Date Reported: 11/19/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2012 Semi-Annual-Ponds

Collection Date: 11/7/2012 9:40:00 AM

Lab ID: 1211301-012

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: JAL
Biochemical Oxygen Demand	310	2.0		mg/L	1	11/14/2012 6:07:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: ECH
E. Coli	<10	10		CFU/100ml	10	11/8/2012 4:30:00 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



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

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :
Sample ID : 1211301-001C EP-1
Collected By :
Collection Date : 11/07/12 08:00

ESC Sample # : L605528-01

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	1100	20.	mg/l	410.4	11/16/12	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: 11/16/12 16:56 Printed: 11/16/12 16:57



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

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :

Sample ID : 1211301-002C EP-2

Collected By :
Collection Date : 11/07/12 08:10

ESC Sample # : L605528-02

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	1300	20.	mg/l	410.4	11/16/12	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: 11/16/12 16:56 Printed: 11/16/12 16:57



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

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :

Sample ID : 1211301-003C EP-3

Collected By :
Collection Date : 11/07/12 08:20

ESC Sample # : L605528-03

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	900	10.	mg/l	410.4	11/15/12	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: 11/16/12 16:56 Printed: 11/16/12 16:57



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

REPORT OF ANALYSIS

November 16, 2012

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : November 09, 2012
Description :
Sample ID : 1211301-004C EP-4
Collected By :
Collection Date : 11/07/12 08:30

ESC Sample # : L605528-04

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	880	10.	mg/l	410.4	11/15/12	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: 11/16/12 16:56 Printed: 11/16/12 16:57



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

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :

Sample ID : 1211301-005C EP-5

Collected By :
Collection Date : 11/07/12 08:40

ESC Sample # : L605528-05

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	1000	10.	mg/l	410.4	11/15/12	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: 11/16/12 16:56 Printed: 11/16/12 16:57



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

REPORT OF ANALYSIS

November 16, 2012

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : November 09, 2012
Description :
Sample ID : 1211301-006C EP-6
Collected By :
Collection Date : 11/07/12 08:50

ESC Sample # : L605528-06

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	1000	20.	mg/l	410.4	11/16/12	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: 11/16/12 16:56 Printed: 11/16/12 16:57



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

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :
Sample ID : 1211301-007C EP-7
Collected By :
Collection Date : 11/07/12 09:00

ESC Sample # : L605528-07

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	2300	200	mg/l	410.4	11/15/12	20

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: 11/16/12 16:56 Printed: 11/16/12 16:57



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

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :
Sample ID : 1211301-0081C EP-8
Collected By :
Collection Date : 11/07/12 09:10

ESC Sample # : L605528-08

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	13000	200	mg/l	410.4	11/15/12	20

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: 11/16/12 16:56 Printed: 11/16/12 16:57



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

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :
Sample ID : 1211301-009C EP-9
Collected By :
Collection Date : 11/07/12 10:00

ESC Sample # : L605528-09

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	1400	50.	mg/l	410.4	11/15/12	5

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: 11/16/12 16:56 Printed: 11/16/12 16:57



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

REPORT OF ANALYSIS

November 16, 2012

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : November 09, 2012
Description :
Sample ID : 1211301-010C EP-11
Collected By :
Collection Date : 11/07/12 09:20

ESC Sample # : L605528-10

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	620	20.	mg/l	410.4	11/15/12	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: 11/16/12 16:56 Printed: 11/16/12 16:57



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

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :
Sample ID : 1211301-011C EP-12A
Collected By :
Collection Date : 11/07/12 09:30

ESC Sample # : L605528-11

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	650	20.	mg/l	410.4	11/15/12	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: 11/16/12 16:56 Printed: 11/16/12 16:57



L.A.B S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

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

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :
Sample ID : 1211301-012C EP-12B
Collected By :
Collection Date : 11/07/12 09:40

ESC Sample # : L605528-12

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	850	20.	mg/l	410.4	11/15/12	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: 11/16/12 16:56 Printed: 11/16/12 16:57



YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L605528

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

November 16, 2012

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
COD	< 10	mg/l			WG623316	11/15/12 22:57
COD	< 10	mg/l			WG623159	11/15/12 14:50
COD	< 10	mg/l			WG623386	11/16/12 13:40
COD	< 10	mg/l			WG623387	11/16/12 14:03

Analyte	Units	Result	Duplicate Duplicate	RPD	Limit	Ref Samp	Batch
COD	mg/l	0	0	0	5	L605552-02	WG623316
COD	mg/l	0	0	0	5	L605552-03	WG623316
COD	mg/l	20.0	18.0	10.5*	5	L605389-12	WG623159
COD	mg/l	17.0	17.0	0	5	L605389-13	WG623159
COD	mg/l	1200	1100	8.70*	5	L605528-01	WG623386
COD	mg/l	1200	1300	8.00*	5	L605528-02	WG623386
COD	mg/l	82.0	110.	29.2*	5	L605823-01	WG623387
COD	mg/l	880.	1000	12.8*	5	L605528-06	WG623387

Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
COD	mg/l	230	222.	96.5	90-110	WG623316
COD	mg/l	230	233.	101.	90-110	WG623159
COD	mg/l	230	243.	106.	90-110	WG623386
COD	mg/l	230	231.	100.	90-110	WG623387

Analyte	Units	Laboratory Control Result	Sample Ref	Duplicate %Rec	Limit	RPD	Limit	Batch
COD	mg/l	222.	222.	96.0	90-110	0	5	WG623316
COD	mg/l	227.	233.	99.0	90-110	2.61	5	WG623159
COD	mg/l	236.	243.	103.	90-110	2.92	5	WG623386
COD	mg/l	239.	231.	104.	90-110	3.40	5	WG623387

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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

YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Quality Assurance Report
Level II

Albuquerque, NM 87109

L605528

November 16, 2012

Analyte	Units	MS Res	Matrix Spike			Limit	Ref Samp	Batch
			Ref Res	TV	% Rec			
COD	mg/l	398.	5.00	400	98.2	90-110	L605552-01	WG623316
COD	mg/l	418.	15.0	400	101.	90-110	L605389-14	WG623159
COD	mg/l	444.	0	400	111.*	90-110	L605653-09	WG623386
COD	mg/l	514.	70.0	400	111.*	90-110	L605823-02	WG623387

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
COD	mg/l	411.	398.	102.	90-110	3.21	5	L605552-01	WG623316
COD	mg/l	434.	418.	105.	90-110	3.76	5	L605389-14	WG623159
COD	mg/l	407.	444.	102.	90-110	8.70*	5	L605653-09	WG623386
COD	mg/l	471.	514.	100.	90-110	8.73*	5	L605823-02	WG623387

Batch number / Run number / Sample number cross reference

WG623316: R2444657: L605528-07 08 09 10 11 12
WG623159: R2445403: L605528-03 04 05
WG623386: R2445758: L605528-01 02
WG623387: R2445877: L605528-06

* * 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#: 1211301

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual-Ponds

Sample ID	MB-4735	SampType:	MBLK	TestCode:	SM5210B: BOD					
Client ID:	PBW	Batch ID:	4735	RunNo:	6838					
Prep Date:	11/8/2012	Analysis Date:	11/13/2012	SeqNo:	198060	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-4735	SampType:	MBLK	TestCode:	SM5210B: BOD					
Client ID:	PBW	Batch ID:	4735	RunNo:	6838					
Prep Date:	11/8/2012	Analysis Date:	11/13/2012	SeqNo:	198061	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-4735	SampType:	LCS	TestCode:	SM5210B: BOD					
Client ID:	LCSW	Batch ID:	4735	RunNo:	6838					
Prep Date:	11/8/2012	Analysis Date:	11/13/2012	SeqNo:	198062	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	88.8	80.3	103			

Sample ID	LCSD-4735	SampType:	LCSD	TestCode:	SM5210B: BOD					
Client ID:	LCSS02	Batch ID:	4735	RunNo:	6838					
Prep Date:	11/8/2012	Analysis Date:	11/13/2012	SeqNo:	198063	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	88.5	80.3	103	0.285	20	

Sample ID	1211250-001ADUP	SampType:	DUP	TestCode:	SM5210B: BOD					
Client ID:	BatchQC	Batch ID:	4735	RunNo:	6838					
Prep Date:	11/8/2012	Analysis Date:	11/13/2012	SeqNo:	198065	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	830	2.0						0.180	20	

Sample ID	MB-4757	SampType:	MBLK	TestCode:	SM5210B: BOD					
Client ID:	PBW	Batch ID:	4757	RunNo:	6874					
Prep Date:	11/9/2012	Analysis Date:	11/14/2012	SeqNo:	198832	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-4757	SampType:	MBLK	TestCode:	SM5210B: BOD					
Client ID:	PBW	Batch ID:	4757	RunNo:	6874					
Prep Date:	11/9/2012	Analysis Date:	11/14/2012	SeqNo:	198833	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.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211301

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual-Ponds

Sample ID	LCS-4757	SampType:	LCS	TestCode:	SM5210B: BOD					
Client ID:	LCSW	Batch ID:	4757	RunNo:	6874					
Prep Date:	11/9/2012	Analysis Date:	11/14/2012	SeqNo:	198834	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	170	2.0	198.0	0	87.0	80.3	103			

Sample ID	LCSD-4757	SampType:	LCSD	TestCode:	SM5210B: BOD					
Client ID:	LCSS02	Batch ID:	4757	RunNo:	6874					
Prep Date:	11/9/2012	Analysis Date:	11/14/2012	SeqNo:	198835	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	170	2.0	198.0	0	87.7	80.3	103	0.867	20	

Sample ID	1211301-010BDUP	SampType:	DUP	TestCode:	SM5210B: BOD					
Client ID:	EP-11	Batch ID:	4757	RunNo:	6874					
Prep Date:	11/9/2012	Analysis Date:	11/14/2012	SeqNo:	198837	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	130	2.0						0.675	20	

Qualifiers:

- | | | |
|--|----|--|
| Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| Sample pH greater than 2 | R | RPD outside accepted recovery limits |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211301

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual-Ponds

Sample ID	MB-4732	SampType:	MBLK	TestCode:	SM 9223B Fecal Indicator:	E. coli	MPN			
Client ID:	PBW	Batch ID:	4732	RunNo:	6770					
Prep Date:	11/7/2012	Analysis Date:	11/8/2012	SeqNo:	195854	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
- P Sample pH greater than 2

- 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



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:	1211301
Received by/date:	<u>mg</u> <u>11/07/12</u>		
Logged By:	Ashley Gallegos	11/7/2012 1:56:00 PM	<u>mg</u>
Completed By:	Ashley Gallegos	11/7/2012 2:20:20 PM	<u>mg</u>
Reviewed By:	<u>IO</u>	<u>11/07/2012</u>	

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
10. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
15. Is it clear what analyses were requested? Yes ☒ No ☐
16. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved bottles checked for pH:	<u>12</u>
Adjusted?	<u>mg</u>
Checked by:	<u>mg</u>

Special Handling (if applicable)

17. 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:	_____		

18. Additional remarks:

19. 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 11, 2012

Cheryl Johnson

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-0231

FAX (505) 722-0210

RE: 2012 Semi-Annual Ponds

OrderNo.: 1211303

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 15 sample(s) on 11/7/2012 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,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 10:15:00 AM

Lab ID: 1211303-001

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	84	5.0	*	mg/L	50	11/13/2012 3:06:19 PM
Chloride	290	10		mg/L	20	11/8/2012 8:25:46 AM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/8/2012 8:25:46 AM
Bromide	ND	2.0		mg/L	20	11/8/2012 8:25:46 AM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 8:25:46 AM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 8:25:46 AM
Sulfate	820	10		mg/L	20	11/8/2012 8:25:46 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.034	0.0020		mg/L	1	11/9/2012 4:14:41 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 4:14:41 PM
Calcium	38	1.0		mg/L	1	11/9/2012 4:14:41 PM
Chromium	0.012	0.0060		mg/L	1	11/9/2012 4:14:41 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 4:14:41 PM
Iron	1.2	0.10	*	mg/L	5	11/9/2012 4:27:47 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 4:14:41 PM
Magnesium	14	1.0		mg/L	1	11/9/2012 4:14:41 PM
Manganese	0.36	0.0020	*	mg/L	1	11/9/2012 4:14:41 PM
Potassium	31	1.0		mg/L	1	11/9/2012 4:14:41 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 4:14:41 PM
Sodium	830	10		mg/L	10	11/9/2012 4:50:35 PM
Zinc	0.045	0.010		mg/L	1	11/9/2012 4:14:41 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.037	0.0020		mg/L	1	11/15/2012 8:00:48 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 8:00:48 PM
Chromium	0.014	0.0060		mg/L	1	11/15/2012 8:00:48 PM
Copper	ND	0.0060		mg/L	1	11/15/2012 8:00:48 PM
Iron	1.3	0.10	*	mg/L	5	11/15/2012 8:04:21 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 8:00:48 PM
Manganese	0.37	0.0020	*	mg/L	1	11/15/2012 8:00:48 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 5:29:52 PM
Zinc	0.025	0.010		mg/L	1	11/15/2012 8:00:48 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.010	0.0010	*	mg/L	1	11/19/2012 3:10:28 PM
Selenium	0.0041	0.0010		mg/L	1	11/19/2012 4:48:27 PM
Uranium	ND	0.0010		mg/L	1	11/19/2012 3:10:28 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0093	0.0025		mg/L	2.5	11/16/2012 3:29:29 PM
Selenium	0.0053	0.0025		mg/L	2.5	11/16/2012 3:29:29 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 3:29:29 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 10:15:00 AM

Lab ID: 1211303-001

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	0.00033	0.00020		mg/L	1	11/12/2012 3:14:23 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Aniline	110	50		µg/L	1	11/9/2012 11:07:17 AM
Anthracene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Azobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Benzoic acid	ND	100		µg/L	1	11/9/2012 11:07:17 AM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 11:07:17 AM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Carbazole	ND	50		µg/L	1	11/9/2012 11:07:17 AM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Chrysene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 11:07:17 AM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 11:07:17 AM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 11:07:17 AM
2,4-Dimethylphenol	160	50		µg/L	1	11/9/2012 11:07:17 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 11:07:17 AM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 11:07:17 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 10:15:00 AM

Lab ID: 1211303-001

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Fluoranthene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Fluorene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Isophorone	ND	50		µg/L	1	11/9/2012 11:07:17 AM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2-Methylphenol	920	50		µg/L	1	11/9/2012 11:07:17 AM
3+4-Methylphenol	1300	250		µg/L	5	11/9/2012 5:15:10 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 11:07:17 AM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 11:07:17 AM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Naphthalene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 11:07:17 AM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 11:07:17 AM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 11:07:17 AM
Phenanthrene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Phenol	2300	250		µg/L	5	11/9/2012 5:15:10 PM
Pyrene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Pyridine	ND	50		µg/L	1	11/9/2012 11:07:17 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Surr: 2,4,6-Tribromophenol	85.1	42.9-124		%REC	1	11/9/2012 11:07:17 AM
Surr: 2-Fluorobiphenyl	75.9	40-108		%REC	1	11/9/2012 11:07:17 AM
Surr: 2-Fluorophenol	67.8	23.6-94.8		%REC	1	11/9/2012 11:07:17 AM
Surr: 4-Terphenyl-d14	64.9	41.9-103		%REC	1	11/9/2012 11:07:17 AM
Surr: Nitrobenzene-d5	78.0	42.6-114		%REC	1	11/9/2012 11:07:17 AM
Surr: Phenol-d5	51.1	20.3-74.7		%REC	1	11/9/2012 11:07:17 AM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Toluene	ND	10		µg/L	10	11/8/2012 11:24:29 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 10:15:00 AM

Lab ID: 1211303-001

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Naphthalene	ND	20		µg/L	10	11/8/2012 11:24:29 PM
1-Methylnaphthalene	ND	40		µg/L	10	11/8/2012 11:24:29 PM
2-Methylnaphthalene	ND	40		µg/L	10	11/8/2012 11:24:29 PM
Acetone	2400	500		µg/L	50	11/16/2012 8:32:00 PM
Bromobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Bromodichloromethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Bromoform	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Bromomethane	ND	30		µg/L	10	11/8/2012 11:24:29 PM
2-Butanone	380	100		µg/L	10	11/8/2012 11:24:29 PM
Carbon disulfide	ND	100		µg/L	10	11/8/2012 11:24:29 PM
Carbon Tetrachloride	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Chlorobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Chloroethane	ND	20		µg/L	10	11/8/2012 11:24:29 PM
Chloroform	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Chloromethane	ND	30		µg/L	10	11/8/2012 11:24:29 PM
2-Chlorotoluene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
4-Chlorotoluene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
cis-1,2-DCE	ND	10		µg/L	10	11/8/2012 11:24:29 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/8/2012 11:24:29 PM
Dibromochloromethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Dibromomethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Dichlorodifluoromethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,1-Dichloroethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,1-Dichloroethene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2-Dichloropropane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,3-Dichloropropane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
2,2-Dichloropropane	ND	20		µg/L	10	11/8/2012 11:24:29 PM
1,1-Dichloropropene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Hexachlorobutadiene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
2-Hexanone	ND	100		µg/L	10	11/8/2012 11:24:29 PM
Isopropylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
4-Isopropyltoluene	ND	10		µg/L	10	11/8/2012 11:24:29 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 10:15:00 AM

Lab ID: 1211303-001

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JPM
4-Methyl-2-pentanone	ND	100		µg/L	10	11/8/2012 11:24:29 PM
Methylene Chloride	ND	30		µg/L	10	11/8/2012 11:24:29 PM
n-Butylbenzene	ND	30		µg/L	10	11/8/2012 11:24:29 PM
n-Propylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
sec-Butylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Styrene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
tert-Butylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/8/2012 11:24:29 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/8/2012 11:24:29 PM
trans-1,2-DCE	ND	10		µg/L	10	11/8/2012 11:24:29 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Trichloroethene (TCE)	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Trichlorofluoromethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/8/2012 11:24:29 PM
Vinyl chloride	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Xylenes, Total	ND	15		µg/L	10	11/8/2012 11:24:29 PM
Surr: 1,2-Dichloroethane-d4	82.7	70-130		%REC	10	11/8/2012 11:24:29 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	10	11/8/2012 11:24:29 PM
Surr: Dibromofluoromethane	90.6	70-130		%REC	10	11/8/2012 11:24:29 PM
Surr: Toluene-d8	93.5	70-130		%REC	10	11/8/2012 11:24:29 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	6900	0.50		µmhos/cm	50	11/8/2012 12:46:15 PM
SM4500-H+B: PH						Analyst: JML
pH	8.31	1.68	H	pH units	1	11/9/2012 5:46:39 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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 10:35:00 AM

Lab ID: 1211303-002

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	77	2.0	*	mg/L	20	11/8/2012 8:50:35 AM
Chloride	2000	250		mg/L	500	11/8/2012 9:03:00 AM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/8/2012 8:50:35 AM
Bromide	ND	2.0		mg/L	20	11/8/2012 8:50:35 AM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 8:50:35 AM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 8:50:35 AM
Sulfate	1200	250		mg/L	500	11/8/2012 9:03:00 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.040	0.0020		mg/L	1	11/9/2012 4:58:03 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 4:58:03 PM
Calcium	140	10		mg/L	10	11/9/2012 5:03:40 PM
Chromium	0.0065	0.0060		mg/L	1	11/9/2012 4:58:03 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 4:58:03 PM
Iron	1.0	0.020	*	mg/L	1	11/9/2012 4:58:03 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 4:58:03 PM
Magnesium	46	1.0		mg/L	1	11/9/2012 4:58:03 PM
Manganese	0.52	0.0020	*	mg/L	1	11/9/2012 4:58:03 PM
Potassium	89	1.0		mg/L	1	11/9/2012 4:58:03 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 4:58:03 PM
Sodium	1800	100		mg/L	100	11/9/2012 5:07:37 PM
Zinc	0.076	0.010		mg/L	1	11/9/2012 4:58:03 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.039	0.0020		mg/L	1	11/15/2012 8:21:51 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 8:21:51 PM
Chromium	0.0076	0.0060		mg/L	1	11/15/2012 8:21:51 PM
Copper	ND	0.0060		mg/L	1	11/15/2012 8:21:51 PM
Iron	1.7	0.10	*	mg/L	5	11/15/2012 8:25:13 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 8:21:51 PM
Manganese	0.48	0.0020	*	mg/L	1	11/15/2012 8:21:51 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 5:37:11 PM
Zinc	0.031	0.010		mg/L	1	11/15/2012 8:21:51 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0081	0.0010		mg/L	1	11/19/2012 3:12:20 PM
Selenium	0.0053	0.0010		mg/L	1	11/19/2012 4:50:18 PM
Uranium	0.0014	0.0010		mg/L	1	11/19/2012 3:12:20 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0095	0.0025		mg/L	2.5	11/16/2012 3:33:25 PM
Selenium	0.0080	0.0025		mg/L	2.5	11/16/2012 3:33:25 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 3:33:25 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 10:35:00 AM

Lab ID: 1211303-002

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	0.00044	0.00020		mg/L	1	11/12/2012 3:16:08 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Acenaphthylene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Aniline	120	20		µg/L	1	11/9/2012 11:37:52 AM
Anthracene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Azobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Benz(a)anthracene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Benzo(a)pyrene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Benzo(b)fluoranthene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Benzo(g,h,i)perylene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Benzo(k)fluoranthene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Benzoic acid	ND	40		µg/L	1	11/9/2012 11:37:52 AM
Benzyl alcohol	26	20		µg/L	1	11/9/2012 11:37:52 AM
Bis(2-chloroethoxy)methane	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Bis(2-chloroethyl)ether	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Bis(2-chloroisopropyl)ether	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Bis(2-ethylhexyl)phthalate	ND	20		µg/L	1	11/9/2012 11:37:52 AM
4-Bromophenyl phenyl ether	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Butyl benzyl phthalate	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Carbazole	ND	20		µg/L	1	11/9/2012 11:37:52 AM
4-Chloro-3-methylphenol	ND	20		µg/L	1	11/9/2012 11:37:52 AM
4-Chloroaniline	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2-Chloronaphthalene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2-Chlorophenol	ND	20		µg/L	1	11/9/2012 11:37:52 AM
4-Chlorophenyl phenyl ether	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Chrysene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Di-n-butyl phthalate	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Di-n-octyl phthalate	ND	40		µg/L	1	11/9/2012 11:37:52 AM
Dibenz(a,h)anthracene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Dibenzofuran	ND	20		µg/L	1	11/9/2012 11:37:52 AM
1,2-Dichlorobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
1,3-Dichlorobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
1,4-Dichlorobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
3,3'-Dichlorobenzidine	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Diethyl phthalate	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Dimethyl phthalate	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2,4-Dichlorophenol	ND	40		µg/L	1	11/9/2012 11:37:52 AM
2,4-Dimethylphenol	100	20		µg/L	1	11/9/2012 11:37:52 AM
4,6-Dinitro-2-methylphenol	ND	40		µg/L	1	11/9/2012 11:37:52 AM
2,4-Dinitrophenol	ND	40		µg/L	1	11/9/2012 11:37:52 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 10:35:00 AM

Lab ID: 1211303-002

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2,6-Dinitrotoluene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Fluoranthene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Fluorene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Hexachlorobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Hexachlorobutadiene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Hexachlorocyclopentadiene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Hexachloroethane	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Indeno(1,2,3-cd)pyrene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Isophorone	ND	20		µg/L	1	11/9/2012 11:37:52 AM
1-Methylnaphthalene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2-Methylnaphthalene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2-Methylphenol	520	200		µg/L	10	11/9/2012 5:45:43 PM
3+4-Methylphenol	960	200		µg/L	10	11/9/2012 5:45:43 PM
N-Nitrosodi-n-propylamine	ND	20		µg/L	1	11/9/2012 11:37:52 AM
N-Nitrosodimethylamine	ND	20		µg/L	1	11/9/2012 11:37:52 AM
N-Nitrosodiphenylamine	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Naphthalene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2-Nitroaniline	ND	20		µg/L	1	11/9/2012 11:37:52 AM
3-Nitroaniline	ND	20		µg/L	1	11/9/2012 11:37:52 AM
4-Nitroaniline	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Nitrobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2-Nitrophenol	ND	20		µg/L	1	11/9/2012 11:37:52 AM
4-Nitrophenol	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Pentachlorophenol	ND	40		µg/L	1	11/9/2012 11:37:52 AM
Phenanthrene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Phenol	2000	200		µg/L	10	11/9/2012 5:45:43 PM
Pyrene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Pyridine	ND	20		µg/L	1	11/9/2012 11:37:52 AM
1,2,4-Trichlorobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2,4,5-Trichlorophenol	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2,4,6-Trichlorophenol	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Surr: 2,4,6-Tribromophenol	91.2	42.9-124		%REC	1	11/9/2012 11:37:52 AM
Surr: 2-Fluorobiphenyl	67.2	40-108		%REC	1	11/9/2012 11:37:52 AM
Surr: 2-Fluorophenol	71.6	23.6-94.8		%REC	1	11/9/2012 11:37:52 AM
Surr: 4-Terphenyl-d14	69.2	41.9-103		%REC	1	11/9/2012 11:37:52 AM
Surr: Nitrobenzene-d5	84.6	42.6-114		%REC	1	11/9/2012 11:37:52 AM
Surr: Phenol-d5	53.9	20.3-74.7		%REC	1	11/9/2012 11:37:52 AM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Toluene	ND	10		µg/L	10	11/16/2012 9:03:34 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 10:35:00 AM

Lab ID: 1211303-002

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Naphthalene	ND	20		µg/L	10	11/16/2012 9:03:34 PM
1-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 9:03:34 PM
2-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 9:03:34 PM
Acetone	240	100		µg/L	10	11/16/2012 9:03:34 PM
Bromobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Bromodichloromethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Bromoform	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Bromomethane	ND	30		µg/L	10	11/16/2012 9:03:34 PM
2-Butanone	ND	100		µg/L	10	11/16/2012 9:03:34 PM
Carbon disulfide	380	100		µg/L	10	11/16/2012 9:03:34 PM
Carbon Tetrachloride	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Chlorobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Chloroethane	ND	20		µg/L	10	11/16/2012 9:03:34 PM
Chloroform	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Chloromethane	ND	30		µg/L	10	11/16/2012 9:03:34 PM
2-Chlorotoluene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
4-Chlorotoluene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
cis-1,2-DCE	ND	10		µg/L	10	11/16/2012 9:03:34 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/16/2012 9:03:34 PM
Dibromochloromethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Dibromomethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Dichlorodifluoromethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,1-Dichloroethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,1-Dichloroethene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2-Dichloropropane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,3-Dichloropropane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
2,2-Dichloropropane	ND	20		µg/L	10	11/16/2012 9:03:34 PM
1,1-Dichloropropene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Hexachlorobutadiene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
2-Hexanone	ND	100		µg/L	10	11/16/2012 9:03:34 PM
Isopropylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
4-Isopropyltoluene	ND	10		µg/L	10	11/16/2012 9:03:34 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 10:35:00 AM

Lab ID: 1211303-002

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/16/2012 9:03:34 PM
Methylene Chloride	ND	30		µg/L	10	11/16/2012 9:03:34 PM
n-Butylbenzene	ND	30		µg/L	10	11/16/2012 9:03:34 PM
n-Propylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
sec-Butylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Styrene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
tert-Butylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/16/2012 9:03:34 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/16/2012 9:03:34 PM
trans-1,2-DCE	ND	10		µg/L	10	11/16/2012 9:03:34 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Trichloroethene (TCE)	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Trichlorofluoromethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/16/2012 9:03:34 PM
Vinyl chloride	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Xylenes, Total	ND	15		µg/L	10	11/16/2012 9:03:34 PM
Surr: 1,2-Dichloroethane-d4	86.3	70-130		%REC	10	11/16/2012 9:03:34 PM
Surr: 4-Bromofluorobenzene	86.9	70-130		%REC	10	11/16/2012 9:03:34 PM
Surr: Dibromofluoromethane	90.4	70-130		%REC	10	11/16/2012 9:03:34 PM
Surr: Toluene-d8	99.4	70-130		%REC	10	11/16/2012 9:03:34 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	12000	0.50		µmhos/cm	50	11/8/2012 12:50:45 PM
SM4500-H+B: PH						Analyst: JML
pH	7.84	1.68	H	pH units	1	11/9/2012 5:50:41 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 11:00:00 AM

Lab ID: 1211303-003

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	46	2.0	*	mg/L	20	11/8/2012 9:15:25 AM
Chloride	4000	250		mg/L	500	11/8/2012 9:52:39 AM
Bromide	ND	2.0		mg/L	20	11/8/2012 9:15:25 AM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 9:15:25 AM
Sulfate	980	10		mg/L	20	11/8/2012 9:15:25 AM
Nitrate+Nitrite as N	ND	10		mg/L	50	11/13/2012 5:47:39 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.068	0.0020		mg/L	1	11/9/2012 5:11:13 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 5:11:13 PM
Calcium	170	10		mg/L	10	11/9/2012 5:14:52 PM
Chromium	ND	0.0060		mg/L	1	11/9/2012 5:11:13 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 5:11:13 PM
Iron	0.29	0.020		mg/L	1	11/9/2012 5:11:13 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 5:11:13 PM
Magnesium	83	1.0		mg/L	1	11/9/2012 5:11:13 PM
Manganese	0.59	0.0020	*	mg/L	1	11/9/2012 5:11:13 PM
Potassium	220	10		mg/L	10	11/9/2012 5:14:52 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 5:11:13 PM
Sodium	2900	50		mg/L	50	11/9/2012 5:18:51 PM
Zinc	0.13	0.010		mg/L	1	11/9/2012 5:11:13 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.061	0.0020		mg/L	1	11/15/2012 8:29:18 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 8:29:18 PM
Chromium	ND	0.0060		mg/L	1	11/15/2012 8:29:18 PM
Copper	ND	0.0060		mg/L	1	11/15/2012 8:29:18 PM
Iron	1.2	0.10	*	mg/L	5	11/15/2012 8:32:24 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 8:29:18 PM
Manganese	0.52	0.0020	*	mg/L	1	11/15/2012 8:29:18 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 5:55:28 PM
Zinc	0.026	0.010		mg/L	1	11/15/2012 8:29:18 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0076	0.0010		mg/L	1	11/19/2012 3:14:13 PM
Selenium	ND	0.010		mg/L	10	12/3/2012 1:40:36 PM
Uranium	ND	0.0010		mg/L	1	11/19/2012 3:14:13 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.011	0.0025	*	mg/L	2.5	11/16/2012 3:37:21 PM
Selenium	0.011	0.0025		mg/L	2.5	11/16/2012 3:37:21 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 3:37:21 PM
EPA METHOD 245.1: MERCURY						Analyst: IDC

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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 11:00:00 AM

Lab ID: 1211303-003

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:17:55 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Aniline	60	50		µg/L	1	11/9/2012 12:08:30 PM
Anthracene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 12:08:30 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 12:08:30 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Carbazole	ND	50		µg/L	1	11/9/2012 12:08:30 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Chrysene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 12:08:30 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 12:08:30 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 12:08:30 PM
2,4-Dimethylphenol	72	50		µg/L	1	11/9/2012 12:08:30 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 12:08:30 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 12:08:30 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 11:00:00 AM

Lab ID: 1211303-003

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Fluorene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Isophorone	ND	50		µg/L	1	11/9/2012 12:08:30 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2-Methylphenol	290	50		µg/L	1	11/9/2012 12:08:30 PM
3+4-Methylphenol	530	50		µg/L	1	11/9/2012 12:08:30 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 12:08:30 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 12:08:30 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 12:08:30 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 12:08:30 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 12:08:30 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Phenol	1100	50		µg/L	1	11/9/2012 12:08:30 PM
Pyrene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Pyridine	ND	50		µg/L	1	11/9/2012 12:08:30 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Surr: 2,4,6-Tribromophenol	93.2	42.9-124		%REC	1	11/9/2012 12:08:30 PM
Surr: 2-Fluorobiphenyl	73.9	40-108		%REC	1	11/9/2012 12:08:30 PM
Surr: 2-Fluorophenol	71.1	23.6-94.8		%REC	1	11/9/2012 12:08:30 PM
Surr: 4-Terphenyl-d14	77.0	41.9-103		%REC	1	11/9/2012 12:08:30 PM
Surr: Nitrobenzene-d5	90.5	42.6-114		%REC	1	11/9/2012 12:08:30 PM
Surr: Phenol-d5	51.5	20.3-74.7		%REC	1	11/9/2012 12:08:30 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Toluene	ND	10		µg/L	10	11/16/2012 9:35:18 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 11:00:00 AM

Lab ID: 1211303-003

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Naphthalene	ND	20		µg/L	10	11/16/2012 9:35:18 PM
1-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 9:35:18 PM
2-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 9:35:18 PM
Acetone	130	100		µg/L	10	11/16/2012 9:35:18 PM
Bromobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Bromodichloromethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Bromoform	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Bromomethane	ND	30		µg/L	10	11/16/2012 9:35:18 PM
2-Butanone	ND	100		µg/L	10	11/16/2012 9:35:18 PM
Carbon disulfide	780	100		µg/L	10	11/16/2012 9:35:18 PM
Carbon Tetrachloride	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Chlorobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Chloroethane	ND	20		µg/L	10	11/16/2012 9:35:18 PM
Chloroform	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Chloromethane	ND	30		µg/L	10	11/16/2012 9:35:18 PM
2-Chlorotoluene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
4-Chlorotoluene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
cis-1,2-DCE	ND	10		µg/L	10	11/16/2012 9:35:18 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/16/2012 9:35:18 PM
Dibromochloromethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Dibromomethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Dichlorodifluoromethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,1-Dichloroethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,1-Dichloroethene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2-Dichloropropane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,3-Dichloropropane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
2,2-Dichloropropane	ND	20		µg/L	10	11/16/2012 9:35:18 PM
1,1-Dichloropropene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Hexachlorobutadiene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
2-Hexanone	ND	100		µg/L	10	11/16/2012 9:35:18 PM
Isopropylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
4-Isopropyltoluene	ND	10		µg/L	10	11/16/2012 9:35:18 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 11:00:00 AM

Lab ID: 1211303-003

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/16/2012 9:35:18 PM
Methylene Chloride	ND	30		µg/L	10	11/16/2012 9:35:18 PM
n-Butylbenzene	ND	30		µg/L	10	11/16/2012 9:35:18 PM
n-Propylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
sec-Butylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Styrene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
tert-Butylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/16/2012 9:35:18 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/16/2012 9:35:18 PM
trans-1,2-DCE	ND	10		µg/L	10	11/16/2012 9:35:18 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Trichloroethene (TCE)	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Trichlorofluoromethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/16/2012 9:35:18 PM
Vinyl chloride	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Xylenes, Total	ND	15		µg/L	10	11/16/2012 9:35:18 PM
Surr: 1,2-Dichloroethane-d4	86.2	70-130		%REC	10	11/16/2012 9:35:18 PM
Surr: 4-Bromofluorobenzene	97.0	70-130		%REC	10	11/16/2012 9:35:18 PM
Surr: Dibromofluoromethane	90.5	70-130		%REC	10	11/16/2012 9:35:18 PM
Surr: Toluene-d8	107	70-130		%REC	10	11/16/2012 9:35:18 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	19000	0.50		µmhos/cm	50	11/8/2012 12:54:39 PM
SM4500-H+B: PH						Analyst: JML
pH	8.13	1.68	H	pH units	1	11/9/2012 5:54:48 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** EP-5**Project:** 2012 Semi-Annual Ponds**Collection Date:** 11/6/2012 11:30:00 AM**Lab ID:** 1211303-004**Matrix:** AQUEOUS**Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	16	5.0	*	mg/L	50	11/13/2012 3:18:44 PM
Chloride	5600	250		mg/L	500	11/8/2012 10:42:18 AM
Nitrogen, Nitrite (As N)	ND	50		mg/L	500	11/8/2012 10:42:18 AM
Bromide	ND	2.0		mg/L	20	11/8/2012 10:29:54 AM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 10:29:54 AM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 10:29:54 AM
Sulfate	870	10		mg/L	20	11/8/2012 10:29:54 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.070	0.0020		mg/L	1	11/9/2012 5:33:30 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 5:33:30 PM
Calcium	170	10		mg/L	10	11/9/2012 5:38:48 PM
Chromium	ND	0.0060		mg/L	1	11/9/2012 5:33:30 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 5:33:30 PM
Iron	0.25	0.020		mg/L	1	11/9/2012 5:33:30 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 5:33:30 PM
Magnesium	110	10		mg/L	10	11/9/2012 5:38:48 PM
Manganese	0.45	0.0020	*	mg/L	1	11/9/2012 5:33:30 PM
Potassium	290	10		mg/L	10	11/9/2012 5:38:48 PM
Selenium	ND	0.050		mg/L	1	11/9/2012 5:33:30 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 5:33:30 PM
Sodium	3700	50		mg/L	50	11/14/2012 1:45:18 PM
Zinc	0.034	0.010		mg/L	1	11/9/2012 5:33:30 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.062	0.0020		mg/L	1	11/15/2012 8:36:29 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 8:36:29 PM
Chromium	ND	0.0060		mg/L	1	11/15/2012 8:36:29 PM
Copper	ND	0.0060		mg/L	1	11/15/2012 8:36:29 PM
Iron	0.63	0.020	*	mg/L	1	11/15/2012 8:36:29 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 8:36:29 PM
Manganese	0.39	0.0020	*	mg/L	1	11/15/2012 8:36:29 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 6:03:07 PM
Zinc	0.023	0.010		mg/L	1	11/15/2012 8:36:29 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0075	0.0010		mg/L	1	11/19/2012 3:16:05 PM
Uranium	ND	0.0010		mg/L	1	11/19/2012 3:16:05 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.012	0.0025	*	mg/L	2.5	11/16/2012 3:41:17 PM
Selenium	0.012	0.0025		mg/L	2.5	11/16/2012 3:41:17 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 3:41:17 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 11:30:00 AM

Lab ID: 1211303-004

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:19:41 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Aniline	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Anthracene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 12:39:12 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 12:39:12 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Carbazole	ND	50		µg/L	1	11/9/2012 12:39:12 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Chrysene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 12:39:12 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 12:39:12 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 12:39:12 PM
2,4-Dimethylphenol	74	50		µg/L	1	11/9/2012 12:39:12 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 12:39:12 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 12:39:12 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** EP-5**Project:** 2012 Semi-Annual Ponds**Collection Date:** 11/6/2012 11:30:00 AM**Lab ID:** 1211303-004**Matrix:** AQUEOUS**Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Fluorene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Isophorone	ND	50		µg/L	1	11/9/2012 12:39:12 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2-Methylphenol	270	50		µg/L	1	11/9/2012 12:39:12 PM
3+4-Methylphenol	400	50		µg/L	1	11/9/2012 12:39:12 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 12:39:12 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 12:39:12 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 12:39:12 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 12:39:12 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 12:39:12 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Phenol	900	50		µg/L	1	11/9/2012 12:39:12 PM
Pyrene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Pyridine	ND	50		µg/L	1	11/9/2012 12:39:12 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Surr: 2,4,6-Tribromophenol	78.1	42.9-124		%REC	1	11/9/2012 12:39:12 PM
Surr: 2-Fluorobiphenyl	64.5	40-108		%REC	1	11/9/2012 12:39:12 PM
Surr: 2-Fluorophenol	65.2	23.6-94.8		%REC	1	11/9/2012 12:39:12 PM
Surr: 4-Terphenyl-d14	72.2	41.9-103		%REC	1	11/9/2012 12:39:12 PM
Surr: Nitrobenzene-d5	90.5	42.6-114		%REC	1	11/9/2012 12:39:12 PM
Surr: Phenol-d5	53.2	20.3-74.7		%REC	1	11/9/2012 12:39:12 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Toluene	ND	10		µg/L	10	11/16/2012 10:07:03 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 11:30:00 AM

Lab ID: 1211303-004

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Naphthalene	ND	20		µg/L	10	11/16/2012 10:07:03 PM
1-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 10:07:03 PM
2-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 10:07:03 PM
Acetone	ND	100		µg/L	10	11/16/2012 10:07:03 PM
Bromobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Bromodichloromethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Bromoform	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Bromomethane	ND	30		µg/L	10	11/16/2012 10:07:03 PM
2-Butanone	ND	100		µg/L	10	11/16/2012 10:07:03 PM
Carbon disulfide	1300	100		µg/L	10	11/16/2012 10:07:03 PM
Carbon Tetrachloride	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Chlorobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Chloroethane	ND	20		µg/L	10	11/16/2012 10:07:03 PM
Chloroform	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Chloromethane	ND	30		µg/L	10	11/16/2012 10:07:03 PM
2-Chlorotoluene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
4-Chlorotoluene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
cis-1,2-DCE	ND	10		µg/L	10	11/16/2012 10:07:03 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/16/2012 10:07:03 PM
Dibromochloromethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Dibromomethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Dichlorodifluoromethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,1-Dichloroethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,1-Dichloroethene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2-Dichloropropane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,3-Dichloropropane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
2,2-Dichloropropane	ND	20		µg/L	10	11/16/2012 10:07:03 PM
1,1-Dichloropropene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Hexachlorobutadiene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
2-Hexanone	ND	100		µg/L	10	11/16/2012 10:07:03 PM
Isopropylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
4-Isopropyltoluene	ND	10		µg/L	10	11/16/2012 10:07:03 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 11:30:00 AM

Lab ID: 1211303-004

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JML
4-Methyl-2-pentanone	ND	100		µg/L	10	11/16/2012 10:07:03 PM
Methylene Chloride	ND	30		µg/L	10	11/16/2012 10:07:03 PM
n-Butylbenzene	ND	30		µg/L	10	11/16/2012 10:07:03 PM
n-Propylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
sec-Butylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Styrene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
tert-Butylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/16/2012 10:07:03 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/16/2012 10:07:03 PM
trans-1,2-DCE	ND	10		µg/L	10	11/16/2012 10:07:03 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Trichloroethene (TCE)	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Trichlorofluoromethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/16/2012 10:07:03 PM
Vinyl chloride	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Xylenes, Total	ND	15		µg/L	10	11/16/2012 10:07:03 PM
Surr: 1,2-Dichloroethane-d4	85.1	70-130		%REC	10	11/16/2012 10:07:03 PM
Surr: 4-Bromofluorobenzene	89.8	70-130		%REC	10	11/16/2012 10:07:03 PM
Surr: Dibromofluoromethane	91.0	70-130		%REC	10	11/16/2012 10:07:03 PM
Surr: Toluene-d8	97.9	70-130		%REC	10	11/16/2012 10:07:03 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	23000	0.50		µmhos/cm	50	11/8/2012 12:58:33 PM
SM4500-H+B: PH						Analyst: JML
pH	8.13	1.68	H	pH units	1	11/9/2012 5:58:57 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 12:00:00 PM

Lab ID: 1211303-005

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	21	2.0	*	mg/L	20	11/8/2012 10:54:42 AM
Chloride	11000	500		mg/L	1000	11/13/2012 3:43:34 PM
Nitrogen, Nitrite (As N)	ND	50		mg/L	500	11/8/2012 11:07:06 AM
Bromide	ND	2.0		mg/L	20	11/8/2012 10:54:42 AM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 10:54:42 AM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 10:54:42 AM
Sulfate	2500	250		mg/L	500	11/8/2012 11:07:06 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.11	0.020		mg/L	10	11/9/2012 5:50:29 PM
Cadmium	ND	0.020		mg/L	10	11/9/2012 5:50:29 PM
Calcium	410	10		mg/L	10	11/9/2012 5:50:29 PM
Chromium	ND	0.060		mg/L	10	11/9/2012 5:50:29 PM
Copper	ND	0.060		mg/L	10	11/9/2012 5:50:29 PM
Iron	0.053	0.020		mg/L	1	11/9/2012 5:46:40 PM
Lead	ND	0.050		mg/L	10	11/9/2012 5:50:29 PM
Magnesium	230	10		mg/L	10	11/9/2012 5:50:29 PM
Manganese	0.10	0.020	*	mg/L	10	11/9/2012 5:50:29 PM
Potassium	480	10		mg/L	10	11/9/2012 5:50:29 PM
Silver	ND	0.050		mg/L	10	11/9/2012 5:50:29 PM
Sodium	6500	100		mg/L	100	11/16/2012 11:43:42 AM
Zinc	ND	0.10		mg/L	10	11/9/2012 5:50:29 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.092	0.0020		mg/L	1	11/15/2012 8:44:22 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 8:44:22 PM
Chromium	0.0076	0.0060		mg/L	1	11/15/2012 8:44:22 PM
Copper	ND	0.0060		mg/L	1	11/15/2012 8:44:22 PM
Iron	0.14	0.020		mg/L	1	11/15/2012 8:44:22 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 8:44:22 PM
Manganese	0.086	0.0020	*	mg/L	1	11/15/2012 8:44:22 PM
Silver	ND	0.0050		mg/L	1	11/28/2012 2:28:37 PM
Zinc	ND	0.010		mg/L	1	11/15/2012 8:44:22 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.022	0.010	*	mg/L	10	11/20/2012 12:47:25 PM
Selenium	0.014	0.010		mg/L	10	12/3/2012 1:44:32 PM
Uranium	ND	0.0050		mg/L	5	11/19/2012 3:31:06 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.023	0.0025	*	mg/L	2.5	11/16/2012 3:45:13 PM
Selenium	0.024	0.0025		mg/L	2.5	11/16/2012 3:45:13 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 3:45:13 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 12:00:00 PM

Lab ID: 1211303-005

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:21:28 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Aniline	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Anthracene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 1:09:57 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Carbazole	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Chrysene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 1:09:57 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 1:09:57 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 1:09:57 PM
2,4-Dimethylphenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 1:09:57 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 1:09:57 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 12:00:00 PM

Lab ID: 1211303-005

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Fluorene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Isophorone	ND	50		µg/L	1	11/9/2012 1:09:57 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2-Methylphenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
3+4-Methylphenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 1:09:57 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 1:09:57 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 1:09:57 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 1:09:57 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Phenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Pyrene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Pyridine	ND	50		µg/L	1	11/9/2012 1:09:57 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Surr: 2,4,6-Tribromophenol	82.8	42.9-124		%REC	1	11/9/2012 1:09:57 PM
Surr: 2-Fluorobiphenyl	87.6	40-108		%REC	1	11/9/2012 1:09:57 PM
Surr: 2-Fluorophenol	71.1	23.6-94.8		%REC	1	11/9/2012 1:09:57 PM
Surr: 4-Terphenyl-d14	66.3	41.9-103		%REC	1	11/9/2012 1:09:57 PM
Surr: Nitrobenzene-d5	84.6	42.6-114		%REC	1	11/9/2012 1:09:57 PM
Surr: Phenol-d5	50.0	20.3-74.7		%REC	1	11/9/2012 1:09:57 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Toluene	ND	10		µg/L	10	11/16/2012 10:38:45 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 12:00:00 PM

Lab ID: 1211303-005

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Naphthalene	ND	20		µg/L	10	11/16/2012 10:38:45 PM
1-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 10:38:45 PM
2-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 10:38:45 PM
Acetone	ND	100		µg/L	10	11/16/2012 10:38:45 PM
Bromobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Bromodichloromethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Bromoform	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Bromomethane	ND	30		µg/L	10	11/16/2012 10:38:45 PM
2-Butanone	ND	100		µg/L	10	11/16/2012 10:38:45 PM
Carbon disulfide	ND	100		µg/L	10	11/16/2012 10:38:45 PM
Carbon Tetrachloride	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Chlorobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Chloroethane	ND	20		µg/L	10	11/16/2012 10:38:45 PM
Chloroform	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Chloromethane	ND	30		µg/L	10	11/16/2012 10:38:45 PM
2-Chlorotoluene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
4-Chlorotoluene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
cis-1,2-DCE	ND	10		µg/L	10	11/16/2012 10:38:45 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/16/2012 10:38:45 PM
Dibromochloromethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Dibromomethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Dichlorodifluoromethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,1-Dichloroethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,1-Dichloroethene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2-Dichloropropane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,3-Dichloropropane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
2,2-Dichloropropane	ND	20		µg/L	10	11/16/2012 10:38:45 PM
1,1-Dichloropropene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Hexachlorobutadiene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
2-Hexanone	ND	100		µg/L	10	11/16/2012 10:38:45 PM
Isopropylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
4-Isopropyltoluene	ND	10		µg/L	10	11/16/2012 10:38:45 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 12:00:00 PM

Lab ID: 1211303-005

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/16/2012 10:38:45 PM
Methylene Chloride	ND	30		µg/L	10	11/16/2012 10:38:45 PM
n-Butylbenzene	ND	30		µg/L	10	11/16/2012 10:38:45 PM
n-Propylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
sec-Butylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Styrene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
tert-Butylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/16/2012 10:38:45 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/16/2012 10:38:45 PM
trans-1,2-DCE	ND	10		µg/L	10	11/16/2012 10:38:45 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Trichloroethene (TCE)	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Trichlorofluoromethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/16/2012 10:38:45 PM
Vinyl chloride	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Xylenes, Total	ND	15		µg/L	10	11/16/2012 10:38:45 PM
Surr: 1,2-Dichloroethane-d4	86.2	70-130		%REC	10	11/16/2012 10:38:45 PM
Surr: 4-Bromofluorobenzene	95.5	70-130		%REC	10	11/16/2012 10:38:45 PM
Surr: Dibromofluoromethane	93.5	70-130		%REC	10	11/16/2012 10:38:45 PM
Surr: Toluene-d8	99.1	70-130		%REC	10	11/16/2012 10:38:45 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	42000	0.50		µmhos/cm	50	11/8/2012 1:02:32 PM
SM4500-H+B: PH						Analyst: JML
pH	7.93	1.68	H	pH units	1	11/9/2012 6:03:05 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 12:30:00 PM

Lab ID: 1211303-006

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	13	2.0	*	mg/L	20	11/8/2012 11:19:31 AM
Chloride	46000	2500		mg/L	5000	11/8/2012 11:31:56 AM
Bromide	380	20		mg/L	200	11/15/2012 6:17:44 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 11:19:31 AM
Sulfate	6400	2500		mg/L	5000	11/8/2012 11:31:56 AM
Nitrate+Nitrite as N	ND	40		mg/L	200	11/21/2012 12:05:05 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.17	0.020		mg/L	10	11/9/2012 5:58:22 PM
Cadmium	ND	0.020		mg/L	10	11/9/2012 5:58:22 PM
Calcium	960	10		mg/L	10	11/9/2012 5:58:22 PM
Chromium	ND	0.060		mg/L	10	11/9/2012 5:58:22 PM
Copper	ND	0.060		mg/L	10	11/9/2012 5:58:22 PM
Iron	ND	0.20		mg/L	10	11/9/2012 5:58:22 PM
Lead	ND	0.050		mg/L	10	11/9/2012 5:58:22 PM
Magnesium	750	10		mg/L	10	11/9/2012 5:58:22 PM
Manganese	0.92	0.020	*	mg/L	10	11/9/2012 5:58:22 PM
Potassium	1100	20		mg/L	20	11/9/2012 6:02:03 PM
Selenium	ND	0.50		mg/L	10	11/9/2012 5:58:22 PM
Silver	ND	0.050		mg/L	10	11/9/2012 5:58:22 PM
Sodium	25000	500		mg/L	500	11/16/2012 11:47:36 AM
Zinc	ND	0.10		mg/L	10	11/9/2012 5:58:22 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.15	0.010		mg/L	5	11/15/2012 8:55:49 PM
Cadmium	ND	0.010		mg/L	5	11/15/2012 8:55:49 PM
Chromium	ND	0.030		mg/L	5	11/15/2012 8:55:49 PM
Copper	ND	0.030		mg/L	5	11/15/2012 8:55:49 PM
Iron	0.13	0.10		mg/L	5	11/15/2012 8:55:49 PM
Lead	ND	0.025		mg/L	5	11/15/2012 8:55:49 PM
Manganese	0.94	0.010	*	mg/L	5	11/15/2012 8:55:49 PM
Selenium	ND	0.25		mg/L	5	11/15/2012 8:55:49 PM
Silver	ND	0.025		mg/L	5	11/27/2012 6:23:30 PM
Zinc	ND	0.050		mg/L	5	11/15/2012 8:55:49 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.048	0.010	*	mg/L	10	11/19/2012 4:55:56 PM
Uranium	ND	0.010		mg/L	10	11/19/2012 4:55:56 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.055	0.010	*	mg/L	10	11/21/2012 11:09:58 AM
Uranium	ND	0.010		mg/L	10	11/21/2012 11:09:58 AM
EPA METHOD 245.1: MERCURY						Analyst: IDC

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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 12:30:00 PM

Lab ID: 1211303-006

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:23:15 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Aniline	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Anthracene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 6:16:18 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Carbazole	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Chrysene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 6:16:18 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 6:16:18 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 6:16:18 PM
2,4-Dimethylphenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 6:16:18 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 6:16:18 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 12:30:00 PM

Lab ID: 1211303-006

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Fluorene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Isophorone	ND	50		µg/L	1	11/9/2012 6:16:18 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2-Methylphenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
3+4-Methylphenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 6:16:18 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 6:16:18 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 6:16:18 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 6:16:18 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Phenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Pyrene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Pyridine	ND	50		µg/L	1	11/9/2012 6:16:18 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Surr: 2,4,6-Tribromophenol	52.0	42.9-124		%REC	1	11/9/2012 6:16:18 PM
Surr: 2-Fluorobiphenyl	88.0	40-108		%REC	1	11/9/2012 6:16:18 PM
Surr: 2-Fluorophenol	34.8	23.6-94.8		%REC	1	11/9/2012 6:16:18 PM
Surr: 4-Terphenyl-d14	72.5	41.9-103		%REC	1	11/9/2012 6:16:18 PM
Surr: Nitrobenzene-d5	89.2	42.6-114		%REC	1	11/9/2012 6:16:18 PM
Surr: Phenol-d5	35.4	20.3-74.7		%REC	1	11/9/2012 6:16:18 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Toluene	ND	10		µg/L	10	11/17/2012 1:16:59 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 12:30:00 PM

Lab ID: 1211303-006

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 1:16:59 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 1:16:59 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 1:16:59 AM
Acetone	ND	100		µg/L	10	11/17/2012 1:16:59 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Bromoform	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 1:16:59 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 1:16:59 AM
Carbon disulfide	ND	100		µg/L	10	11/17/2012 1:16:59 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 1:16:59 AM
Chloroform	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 1:16:59 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 1:16:59 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 1:16:59 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 1:16:59 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 1:16:59 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 1:16:59 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** EP-9**Project:** 2012 Semi-Annual Ponds**Collection Date:** 11/6/2012 12:30:00 PM**Lab ID:** 1211303-006**Matrix:** AQUEOUS**Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 1:16:59 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 1:16:59 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 1:16:59 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Styrene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 1:16:59 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 1:16:59 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 1:16:59 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 1:16:59 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 1:16:59 AM
Surr: 1,2-Dichloroethane-d4	84.8	70-130		%REC	10	11/17/2012 1:16:59 AM
Surr: 4-Bromofluorobenzene	89.9	70-130		%REC	10	11/17/2012 1:16:59 AM
Surr: Dibromofluoromethane	90.7	70-130		%REC	10	11/17/2012 1:16:59 AM
Surr: Toluene-d8	100	70-130		%REC	10	11/17/2012 1:16:59 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	150000	0.50		µmhos/cm	50	11/8/2012 1:06:35 PM
SM4500-H+B: PH						Analyst: JML
pH	7.69	1.68	H	pH units	1	11/9/2012 6:07:15 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:00:00 PM

Lab ID: 1211303-007

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	71	20	*	mg/L	200	11/13/2012 4:20:48 PM
Chloride	250000	10000		mg/L	20000	11/13/2012 2:29:05 PM
Nitrogen, Nitrite (As N)	ND	500		mg/L	5000	11/8/2012 11:56:45 AM
Bromide	ND	500		mg/L	5000	11/8/2012 11:56:45 AM
Nitrogen, Nitrate (As N)	ND	500		mg/L	5000	11/8/2012 11:56:45 AM
Phosphorus, Orthophosphate (As P)	ND	2500		mg/L	5000	11/8/2012 11:56:45 AM
Sulfate	31000	2500		mg/L	5000	11/8/2012 11:56:45 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.26	0.040		mg/L	20	11/9/2012 6:29:11 PM
Cadmium	ND	0.040		mg/L	20	11/9/2012 6:29:11 PM
Calcium	550	20		mg/L	20	11/9/2012 6:29:11 PM
Chromium	ND	0.12		mg/L	20	11/9/2012 6:29:11 PM
Copper	ND	0.12		mg/L	20	11/9/2012 6:29:11 PM
Iron	ND	0.40		mg/L	20	11/9/2012 6:29:11 PM
Lead	ND	0.10		mg/L	20	11/9/2012 6:29:11 PM
Magnesium	5200	500		mg/L	500	11/9/2012 6:33:00 PM
Manganese	36	1.0	*	mg/L	500	11/9/2012 6:33:00 PM
Potassium	7600	500		mg/L	500	11/9/2012 6:33:00 PM
Selenium	ND	1.0		mg/L	20	11/9/2012 6:29:11 PM
Silver	ND	0.10		mg/L	20	11/9/2012 6:29:11 PM
Sodium	99000	2000		mg/L	2000	11/16/2012 2:03:02 PM
Zinc	ND	0.20		mg/L	20	11/9/2012 6:29:11 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.23	0.040		mg/L	20	11/28/2012 3:09:16 PM
Cadmium	ND	0.040		mg/L	20	11/28/2012 3:09:16 PM
Chromium	ND	0.12		mg/L	20	11/28/2012 3:09:16 PM
Copper	ND	0.12		mg/L	20	11/28/2012 3:09:16 PM
Iron	ND	0.20		mg/L	10	11/20/2012 7:43:28 PM
Lead	ND	0.10		mg/L	20	11/28/2012 3:09:16 PM
Manganese	34	0.10	*	mg/L	50	11/16/2012 9:02:45 PM
Selenium	ND	2.5		mg/L	50	11/16/2012 9:02:45 PM
Silver	ND	0.10		mg/L	20	11/28/2012 3:13:19 PM
Zinc	ND	0.20		mg/L	20	11/28/2012 3:09:16 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.47	0.020	*	mg/L	20	11/20/2012 12:51:21 PM
Uranium	0.0011	0.0010		mg/L	1	11/19/2012 3:34:51 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.50	0.020	*	mg/L	20	11/21/2012 11:13:53 AM
Uranium	ND	0.050		mg/L	50	11/21/2012 12:05:06 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:00:00 PM

Lab ID: 1211303-007

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:25:02 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Aniline	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Anthracene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 2:11:21 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Carbazole	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Chrysene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 2:11:21 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 2:11:21 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 2:11:21 PM
2,4-Dimethylphenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 2:11:21 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 2:11:21 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:00:00 PM

Lab ID: 1211303-007

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Fluorene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Isophorone	ND	50		µg/L	1	11/9/2012 2:11:21 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2-Methylphenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
3+4-Methylphenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 2:11:21 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 2:11:21 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 2:11:21 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 2:11:21 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Phenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Pyrene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Pyridine	ND	50		µg/L	1	11/9/2012 2:11:21 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Surr: 2,4,6-Tribromophenol	63.8	42.9-124		%REC	1	11/9/2012 2:11:21 PM
Surr: 2-Fluorobiphenyl	82.9	40-108		%REC	1	11/9/2012 2:11:21 PM
Surr: 2-Fluorophenol	64.0	23.6-94.8		%REC	1	11/9/2012 2:11:21 PM
Surr: 4-Terphenyl-d14	63.3	41.9-103		%REC	1	11/9/2012 2:11:21 PM
Surr: Nitrobenzene-d5	83.7	42.6-114		%REC	1	11/9/2012 2:11:21 PM
Surr: Phenol-d5	62.5	20.3-74.7		%REC	1	11/9/2012 2:11:21 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Toluene	ND	10		µg/L	10	11/17/2012 1:48:38 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:00:00 PM

Lab ID: 1211303-007

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 1:48:38 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 1:48:38 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 1:48:38 AM
Acetone	ND	100		µg/L	10	11/17/2012 1:48:38 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Bromoform	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 1:48:38 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 1:48:38 AM
Carbon disulfide	ND	100		µg/L	10	11/17/2012 1:48:38 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 1:48:38 AM
Chloroform	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 1:48:38 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 1:48:38 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 1:48:38 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 1:48:38 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 1:48:38 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 1:48:38 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:00:00 PM

Lab ID: 1211303-007

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 1:48:38 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 1:48:38 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 1:48:38 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Styrene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 1:48:38 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 1:48:38 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 1:48:38 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 1:48:38 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 1:48:38 AM
Surr: 1,2-Dichloroethane-d4	89.8	70-130		%REC	10	11/17/2012 1:48:38 AM
Surr: 4-Bromofluorobenzene	90.2	70-130		%REC	10	11/17/2012 1:48:38 AM
Surr: Dibromofluoromethane	89.4	70-130		%REC	10	11/17/2012 1:48:38 AM
Surr: Toluene-d8	104	70-130		%REC	10	11/17/2012 1:48:38 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	550000	1.0		µmhos/cm	100	11/9/2012 6:31:40 PM
SM4500-H+B: PH						Analyst: JML
pH	6.58	1.68	H	pH units	1	11/9/2012 6:11:25 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:30:00 PM

Lab ID: 1211303-008

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	37	10	*	mg/L	100	11/13/2012 4:33:12 PM
Chloride	81000	2500		mg/L	5000	11/8/2012 12:21:34 PM
Nitrogen, Nitrite (As N)	ND	500		mg/L	5000	11/8/2012 12:21:34 PM
Bromide	ND	500		mg/L	5000	11/8/2012 12:21:34 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 12:09:10 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 12:09:10 PM
Sulfate	15000	2500		mg/L	5000	11/8/2012 12:21:34 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.14	0.020		mg/L	10	11/9/2012 6:37:00 PM
Cadmium	ND	0.020		mg/L	10	11/9/2012 6:37:00 PM
Calcium	910	10		mg/L	10	11/9/2012 6:37:00 PM
Chromium	ND	0.060		mg/L	10	11/9/2012 6:37:00 PM
Copper	ND	0.060		mg/L	10	11/9/2012 6:37:00 PM
Iron	ND	0.20		mg/L	10	11/9/2012 6:37:00 PM
Lead	ND	0.050		mg/L	10	11/9/2012 6:37:00 PM
Magnesium	1400	20		mg/L	20	11/9/2012 6:40:42 PM
Manganese	0.72	0.020	*	mg/L	10	11/9/2012 6:37:00 PM
Potassium	2300	50		mg/L	50	11/14/2012 2:00:19 PM
Selenium	ND	0.50		mg/L	10	11/9/2012 6:37:00 PM
Silver	ND	0.050		mg/L	10	11/9/2012 6:37:00 PM
Sodium	43000	1000		mg/L	1000	11/14/2012 2:04:23 PM
Zinc	ND	0.10		mg/L	10	11/9/2012 6:37:00 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.081	0.010		mg/L	5	11/15/2012 9:25:21 PM
Cadmium	ND	0.010		mg/L	5	11/15/2012 9:25:21 PM
Chromium	ND	0.030		mg/L	5	11/15/2012 9:25:21 PM
Copper	ND	0.030		mg/L	5	11/16/2012 9:06:52 PM
Iron	ND	0.10		mg/L	5	11/15/2012 9:25:21 PM
Lead	ND	0.025		mg/L	5	11/15/2012 9:25:21 PM
Manganese	0.32	0.010	*	mg/L	5	11/15/2012 9:25:21 PM
Selenium	ND	0.25		mg/L	5	11/15/2012 9:25:21 PM
Silver	ND	0.025		mg/L	5	11/27/2012 6:59:03 PM
Zinc	ND	0.050		mg/L	5	11/15/2012 9:25:21 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.12	0.010	*	mg/L	10	11/19/2012 4:59:41 PM
Uranium	ND	0.020		mg/L	20	12/3/2012 1:48:28 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.14	0.020	*	mg/L	20	11/21/2012 12:09:01 PM
Uranium	ND	0.020		mg/L	20	11/21/2012 12:09:01 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:30:00 PM

Lab ID: 1211303-008

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:26:50 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Aniline	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Anthracene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 2:42:02 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Carbazole	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Chrysene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 2:42:02 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 2:42:02 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 2:42:02 PM
2,4-Dimethylphenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 2:42:02 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 2:42:02 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:30:00 PM

Lab ID: 1211303-008

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Fluorene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Isophorone	ND	50		µg/L	1	11/9/2012 2:42:02 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2-Methylphenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
3+4-Methylphenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 2:42:02 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 2:42:02 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 2:42:02 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 2:42:02 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Phenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Pyrene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Pyridine	ND	50		µg/L	1	11/9/2012 2:42:02 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Surr: 2,4,6-Tribromophenol	55.6	42.9-124		%REC	1	11/9/2012 2:42:02 PM
Surr: 2-Fluorobiphenyl	65.2	40-108		%REC	1	11/9/2012 2:42:02 PM
Surr: 2-Fluorophenol	48.7	23.6-94.8		%REC	1	11/9/2012 2:42:02 PM
Surr: 4-Terphenyl-d14	50.1	41.9-103		%REC	1	11/9/2012 2:42:02 PM
Surr: Nitrobenzene-d5	67.5	42.6-114		%REC	1	11/9/2012 2:42:02 PM
Surr: Phenol-d5	42.2	20.3-74.7		%REC	1	11/9/2012 2:42:02 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Toluene	ND	10		µg/L	10	11/17/2012 2:20:11 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:30:00 PM

Lab ID: 1211303-008

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 2:20:11 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 2:20:11 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 2:20:11 AM
Acetone	ND	100		µg/L	10	11/17/2012 2:20:11 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Bromoform	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 2:20:11 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 2:20:11 AM
Carbon disulfide	ND	100		µg/L	10	11/17/2012 2:20:11 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 2:20:11 AM
Chloroform	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 2:20:11 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 2:20:11 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 2:20:11 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 2:20:11 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 2:20:11 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 2:20:11 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** EP-7**Project:** 2012 Semi-Annual Ponds**Collection Date:** 11/6/2012 1:30:00 PM**Lab ID:** 1211303-008**Matrix:** AQUEOUS**Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 2:20:11 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 2:20:11 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 2:20:11 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Styrene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 2:20:11 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 2:20:11 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 2:20:11 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 2:20:11 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 2:20:11 AM
Surr: 1,2-Dichloroethane-d4	89.6	70-130		%REC	10	11/17/2012 2:20:11 AM
Surr: 4-Bromofluorobenzene	92.1	70-130		%REC	10	11/17/2012 2:20:11 AM
Surr: Dibromofluoromethane	93.5	70-130		%REC	10	11/17/2012 2:20:11 AM
Surr: Toluene-d8	98.7	70-130		%REC	10	11/17/2012 2:20:11 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	210000	0.50		µmhos/cm	50	11/8/2012 1:14:52 PM
SM4500-H+B: PH						Analyst: JML
pH	7.76	1.68	H	pH units	1	11/9/2012 6:15:30 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:45:00 PM

Lab ID: 1211303-009

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	40	2.0	*	mg/L	20	11/8/2012 12:58:50 PM
Chloride	3500	500		mg/L	1000	11/8/2012 1:11:14 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/8/2012 12:58:50 PM
Bromide	ND	2.0		mg/L	20	11/8/2012 12:58:50 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 12:58:50 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 12:58:50 PM
Sulfate	1300	500		mg/L	1000	11/8/2012 1:11:14 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.056	0.0020		mg/L	1	11/9/2012 6:49:50 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 6:49:50 PM
Calcium	170	10		mg/L	10	11/9/2012 6:53:28 PM
Chromium	ND	0.0060		mg/L	1	11/9/2012 6:49:50 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 6:49:50 PM
Iron	0.79	0.020	*	mg/L	1	11/9/2012 6:49:50 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 6:49:50 PM
Magnesium	80	1.0		mg/L	1	11/9/2012 6:49:50 PM
Manganese	0.40	0.0020	*	mg/L	1	11/9/2012 6:49:50 PM
Potassium	210	10		mg/L	10	11/9/2012 6:53:28 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 6:49:50 PM
Sodium	2800	100		mg/L	100	11/14/2012 2:08:08 PM
Zinc	0.043	0.010		mg/L	1	11/9/2012 6:49:50 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.051	0.0020		mg/L	1	11/15/2012 9:29:12 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 9:29:12 PM
Chromium	0.0065	0.0060		mg/L	1	11/15/2012 9:29:12 PM
Copper	ND	0.0060		mg/L	1	11/16/2012 9:10:43 PM
Iron	0.99	0.020	*	mg/L	1	11/15/2012 9:29:12 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 9:29:12 PM
Manganese	0.35	0.0020	*	mg/L	1	11/15/2012 9:29:12 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 7:03:00 PM
Zinc	0.024	0.010		mg/L	1	11/15/2012 9:29:12 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.013	0.0010	*	mg/L	1	11/19/2012 3:55:55 PM
Selenium	0.011	0.010		mg/L	10	12/3/2012 1:52:24 PM
Uranium	0.0012	0.0010		mg/L	1	11/19/2012 3:55:55 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.017	0.0025	*	mg/L	2.5	11/16/2012 4:00:57 PM
Selenium	0.014	0.0025		mg/L	2.5	11/16/2012 4:00:57 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 4:00:57 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** EP-11**Project:** 2012 Semi-Annual Ponds**Collection Date:** 11/6/2012 1:45:00 PM**Lab ID:** 1211303-009**Matrix:** AQUEOUS**Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:28:37 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Aniline	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Anthracene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 3:12:42 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Carbazole	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Chrysene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 3:12:42 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 3:12:42 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 3:12:42 PM
2,4-Dimethylphenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 3:12:42 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 3:12:42 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:45:00 PM

Lab ID: 1211303-009

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Fluorene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Isophorone	ND	50		µg/L	1	11/9/2012 3:12:42 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2-Methylphenol	200	50		µg/L	1	11/9/2012 3:12:42 PM
3+4-Methylphenol	330	50		µg/L	1	11/9/2012 3:12:42 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 3:12:42 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 3:12:42 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 3:12:42 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 3:12:42 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Phenol	680	50		µg/L	1	11/9/2012 3:12:42 PM
Pyrene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Pyridine	ND	50		µg/L	1	11/9/2012 3:12:42 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Surr: 2,4,6-Tribromophenol	91.4	42.9-124		%REC	1	11/9/2012 3:12:42 PM
Surr: 2-Fluorobiphenyl	80.2	40-108		%REC	1	11/9/2012 3:12:42 PM
Surr: 2-Fluorophenol	66.7	23.6-94.8		%REC	1	11/9/2012 3:12:42 PM
Surr: 4-Terphenyl-d14	71.3	41.9-103		%REC	1	11/9/2012 3:12:42 PM
Surr: Nitrobenzene-d5	77.3	42.6-114		%REC	1	11/9/2012 3:12:42 PM
Surr: Phenol-d5	48.6	20.3-74.7		%REC	1	11/9/2012 3:12:42 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Toluene	ND	10		µg/L	10	11/17/2012 2:51:50 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:45:00 PM

Lab ID: 1211303-009

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 2:51:50 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 2:51:50 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 2:51:50 AM
Acetone	120	100		µg/L	10	11/17/2012 2:51:50 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Bromoform	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 2:51:50 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 2:51:50 AM
Carbon disulfide	590	100		µg/L	10	11/17/2012 2:51:50 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 2:51:50 AM
Chloroform	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 2:51:50 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 2:51:50 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 2:51:50 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 2:51:50 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 2:51:50 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 2:51:50 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:45:00 PM

Lab ID: 1211303-009

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 2:51:50 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 2:51:50 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 2:51:50 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Styrene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 2:51:50 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 2:51:50 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 2:51:50 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 2:51:50 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 2:51:50 AM
Surr: 1,2-Dichloroethane-d4	81.6	70-130		%REC	10	11/17/2012 2:51:50 AM
Surr: 4-Bromofluorobenzene	91.7	70-130		%REC	10	11/17/2012 2:51:50 AM
Surr: Dibromofluoromethane	90.0	70-130		%REC	10	11/17/2012 2:51:50 AM
Surr: Toluene-d8	99.9	70-130		%REC	10	11/17/2012 2:51:50 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	18000	0.50		µmhos/cm	50	11/8/2012 1:19:18 PM
SM4500-H+B: PH						Analyst: JML
pH	8.06	1.68	H	pH units	1	11/9/2012 6:19:32 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:00:00 PM

Lab ID: 1211303-010

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	35	2.0	*	mg/L	20	11/8/2012 1:23:39 PM
Chloride	4000	250		mg/L	500	11/8/2012 1:36:03 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/8/2012 1:23:39 PM
Bromide	ND	2.0		mg/L	20	11/8/2012 1:23:39 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 1:23:39 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 1:23:39 PM
Sulfate	1400	250		mg/L	500	11/8/2012 1:36:03 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.057	0.0020		mg/L	1	11/9/2012 7:01:01 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 7:01:01 PM
Calcium	170	10		mg/L	10	11/9/2012 7:04:46 PM
Chromium	ND	0.0060		mg/L	1	11/9/2012 7:01:01 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 7:01:01 PM
Iron	0.70	0.020	*	mg/L	1	11/9/2012 7:01:01 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 7:01:01 PM
Magnesium	80	1.0		mg/L	1	11/9/2012 7:01:01 PM
Manganese	0.38	0.0020	*	mg/L	1	11/9/2012 7:01:01 PM
Potassium	220	10		mg/L	10	11/9/2012 7:04:46 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 7:01:01 PM
Sodium	2900	50		mg/L	50	11/14/2012 2:11:57 PM
Zinc	0.050	0.010		mg/L	1	11/9/2012 7:01:01 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.053	0.0020		mg/L	1	11/15/2012 9:36:51 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 9:36:51 PM
Chromium	ND	0.0060		mg/L	1	11/15/2012 9:36:51 PM
Copper	ND	0.0060		mg/L	1	11/16/2012 9:14:24 PM
Iron	0.86	0.020	*	mg/L	1	11/15/2012 9:36:51 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 9:36:51 PM
Manganese	0.32	0.0020	*	mg/L	1	11/15/2012 9:36:51 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 7:10:46 PM
Zinc	0.020	0.010		mg/L	1	11/15/2012 9:36:51 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.012	0.0010	*	mg/L	1	11/19/2012 4:05:21 PM
Selenium	0.010	0.010		mg/L	10	12/3/2012 1:56:20 PM
Uranium	0.0012	0.0010		mg/L	1	11/19/2012 4:05:21 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.015	0.0025	*	mg/L	2.5	11/21/2012 11:21:46 AM
Selenium	0.013	0.0025		mg/L	2.5	11/16/2012 4:16:45 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 4:16:45 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:00:00 PM

Lab ID: 1211303-010

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:30:22 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Aniline	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Anthracene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 3:43:19 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Carbazole	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Chrysene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 3:43:19 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 3:43:19 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 3:43:19 PM
2,4-Dimethylphenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 3:43:19 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 3:43:19 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:00:00 PM

Lab ID: 1211303-010

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Fluorene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Isophorone	ND	50		µg/L	1	11/9/2012 3:43:19 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2-Methylphenol	150	50		µg/L	1	11/9/2012 3:43:19 PM
3+4-Methylphenol	210	50		µg/L	1	11/9/2012 3:43:19 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 3:43:19 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 3:43:19 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 3:43:19 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 3:43:19 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Phenol	460	50		µg/L	1	11/9/2012 3:43:19 PM
Pyrene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Pyridine	ND	50		µg/L	1	11/9/2012 3:43:19 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Surr: 2,4,6-Tribromophenol	80.7	42.9-124		%REC	1	11/9/2012 3:43:19 PM
Surr: 2-Fluorobiphenyl	65.7	40-108		%REC	1	11/9/2012 3:43:19 PM
Surr: 2-Fluorophenol	56.2	23.6-94.8		%REC	1	11/9/2012 3:43:19 PM
Surr: 4-Terphenyl-d14	63.1	41.9-103		%REC	1	11/9/2012 3:43:19 PM
Surr: Nitrobenzene-d5	62.8	42.6-114		%REC	1	11/9/2012 3:43:19 PM
Surr: Phenol-d5	44.6	20.3-74.7		%REC	1	11/9/2012 3:43:19 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Toluene	ND	10		µg/L	10	11/17/2012 3:23:29 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:00:00 PM

Lab ID: 1211303-010

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 3:23:29 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 3:23:29 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 3:23:29 AM
Acetone	150	100		µg/L	10	11/17/2012 3:23:29 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Bromoform	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 3:23:29 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 3:23:29 AM
Carbon disulfide	610	100		µg/L	10	11/17/2012 3:23:29 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 3:23:29 AM
Chloroform	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 3:23:29 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 3:23:29 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 3:23:29 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 3:23:29 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 3:23:29 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 3:23:29 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:00:00 PM

Lab ID: 1211303-010

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 3:23:29 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 3:23:29 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 3:23:29 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Styrene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 3:23:29 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 3:23:29 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 3:23:29 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 3:23:29 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 3:23:29 AM
Surr: 1,2-Dichloroethane-d4	83.5	70-130		%REC	10	11/17/2012 3:23:29 AM
Surr: 4-Bromofluorobenzene	92.2	70-130		%REC	10	11/17/2012 3:23:29 AM
Surr: Dibromofluoromethane	87.4	70-130		%REC	10	11/17/2012 3:23:29 AM
Surr: Toluene-d8	98.5	70-130		%REC	10	11/17/2012 3:23:29 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	19000	0.50		µmhos/cm	50	11/8/2012 1:23:22 PM
SM4500-H+B: PH						Analyst: JML
pH	8.09	1.68	H	pH units	1	11/9/2012 6:23:34 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:25:00 PM

Lab ID: 1211303-011

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	71	2.0	*	mg/L	20	11/8/2012 1:48:27 PM
Chloride	1900	250		mg/L	500	11/8/2012 2:00:52 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/8/2012 1:48:27 PM
Bromide	ND	2.0		mg/L	20	11/8/2012 1:48:27 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 1:48:27 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 1:48:27 PM
Sulfate	1100	250		mg/L	500	11/8/2012 2:00:52 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.042	0.0020		mg/L	1	11/9/2012 7:27:58 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 7:27:58 PM
Calcium	150	10		mg/L	10	11/9/2012 7:31:58 PM
Chromium	0.0068	0.0060		mg/L	1	11/9/2012 7:27:58 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 7:27:58 PM
Iron	1.1	0.20	*	mg/L	10	11/9/2012 7:31:58 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 7:27:58 PM
Magnesium	49	1.0		mg/L	1	11/9/2012 7:27:58 PM
Manganese	0.52	0.0020	*	mg/L	1	11/9/2012 7:27:58 PM
Potassium	100	10		mg/L	10	11/9/2012 7:31:58 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 7:27:58 PM
Sodium	1700	50		mg/L	50	11/14/2012 2:27:51 PM
Zinc	0.072	0.010		mg/L	1	11/9/2012 7:27:58 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.040	0.0020		mg/L	1	11/15/2012 9:44:35 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 9:44:35 PM
Chromium	0.0069	0.0060		mg/L	1	11/15/2012 9:44:35 PM
Copper	ND	0.0060		mg/L	1	11/16/2012 9:18:06 PM
Iron	1.6	0.10	*	mg/L	5	11/15/2012 9:47:57 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 9:44:35 PM
Manganese	0.47	0.0020	*	mg/L	1	11/15/2012 9:44:35 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 7:18:32 PM
Zinc	0.031	0.010		mg/L	1	11/15/2012 9:44:35 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.013	0.0010	*	mg/L	1	11/19/2012 4:07:13 PM
Selenium	0.012	0.0010		mg/L	1	11/19/2012 4:07:13 PM
Uranium	0.0082	0.0010		mg/L	1	11/19/2012 4:07:13 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0092	0.0025		mg/L	2.5	11/21/2012 11:25:42 AM
Selenium	0.0089	0.0025		mg/L	2.5	11/16/2012 4:20:41 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 4:20:41 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:25:00 PM

Lab ID: 1211303-011

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	0.00042	0.00020		mg/L	1	11/12/2012 3:35:42 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Aniline	93	50		µg/L	1	11/9/2012 4:13:55 PM
Anthracene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 4:13:55 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 4:13:55 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Carbazole	ND	50		µg/L	1	11/9/2012 4:13:55 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Chrysene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 4:13:55 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 4:13:55 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 4:13:55 PM
2,4-Dimethylphenol	89	50		µg/L	1	11/9/2012 4:13:55 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 4:13:55 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 4:13:55 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:25:00 PM

Lab ID: 1211303-011

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Fluorene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Isophorone	ND	50		µg/L	1	11/9/2012 4:13:55 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2-Methylphenol	460	50		µg/L	1	11/9/2012 4:13:55 PM
3+4-Methylphenol	960	50		µg/L	1	11/9/2012 4:13:55 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 4:13:55 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 4:13:55 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 4:13:55 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 4:13:55 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 4:13:55 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Phenol	1800	250		µg/L	5	11/9/2012 6:52:42 PM
Pyrene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Pyridine	ND	50		µg/L	1	11/9/2012 4:13:55 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Surr: 2,4,6-Tribromophenol	87.4	42.9-124		%REC	1	11/9/2012 4:13:55 PM
Surr: 2-Fluorobiphenyl	74.2	40-108		%REC	1	11/9/2012 4:13:55 PM
Surr: 2-Fluorophenol	68.0	23.6-94.8		%REC	1	11/9/2012 4:13:55 PM
Surr: 4-Terphenyl-d14	70.2	41.9-103		%REC	1	11/9/2012 4:13:55 PM
Surr: Nitrobenzene-d5	77.2	42.6-114		%REC	1	11/9/2012 4:13:55 PM
Surr: Phenol-d5	50.6	20.3-74.7		%REC	1	11/9/2012 4:13:55 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Toluene	ND	10		µg/L	10	11/17/2012 3:55:05 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:25:00 PM

Lab ID: 1211303-011

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 3:55:05 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 3:55:05 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 3:55:05 AM
Acetone	240	100		µg/L	10	11/17/2012 3:55:05 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Bromoform	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 3:55:05 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 3:55:05 AM
Carbon disulfide	470	100		µg/L	10	11/17/2012 3:55:05 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 3:55:05 AM
Chloroform	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 3:55:05 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 3:55:05 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 3:55:05 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 3:55:05 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 3:55:05 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 3:55:05 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:25:00 PM

Lab ID: 1211303-011

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 3:55:05 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 3:55:05 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 3:55:05 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Styrene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 3:55:05 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 3:55:05 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 3:55:05 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 3:55:05 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 3:55:05 AM
Surr: 1,2-Dichloroethane-d4	81.2	70-130		%REC	10	11/17/2012 3:55:05 AM
Surr: 4-Bromofluorobenzene	92.9	70-130		%REC	10	11/17/2012 3:55:05 AM
Surr: Dibromofluoromethane	92.0	70-130		%REC	10	11/17/2012 3:55:05 AM
Surr: Toluene-d8	97.0	70-130		%REC	10	11/17/2012 3:55:05 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	12000	0.50		µmhos/cm	50	11/8/2012 1:27:27 PM
SM4500-H+B: PH						Analyst: JML
pH	7.91	1.68	H	pH units	1	11/9/2012 6:27:36 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-1

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 3:00:00 PM

Lab ID: 1211303-012

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	72	5.0	*	mg/L	50	11/13/2012 4:45:36 PM
Chloride	570	100		mg/L	200	11/8/2012 2:25:42 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/8/2012 2:13:17 PM
Bromide	2.5	2.0		mg/L	20	11/8/2012 2:13:17 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 2:13:17 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 2:13:17 PM
Sulfate	980	10		mg/L	20	11/8/2012 2:13:17 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.034	0.0020		mg/L	1	11/9/2012 7:39:40 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 7:39:40 PM
Calcium	92	1.0		mg/L	1	11/9/2012 7:39:40 PM
Chromium	0.0073	0.0060		mg/L	1	11/9/2012 7:39:40 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 7:39:40 PM
Iron	2.2	0.20	*	mg/L	10	11/9/2012 7:43:00 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 7:39:40 PM
Magnesium	36	1.0		mg/L	1	11/9/2012 7:39:40 PM
Manganese	0.66	0.0020	*	mg/L	1	11/9/2012 7:39:40 PM
Potassium	62	1.0		mg/L	1	11/9/2012 7:39:40 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 7:39:40 PM
Sodium	970	50		mg/L	50	11/14/2012 2:31:35 PM
Zinc	0.099	0.010		mg/L	1	11/9/2012 7:39:40 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.037	0.0020		mg/L	1	11/15/2012 10:05:37 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 10:05:37 PM
Chromium	0.0079	0.0060		mg/L	1	11/15/2012 10:05:37 PM
Copper	ND	0.0060		mg/L	1	11/16/2012 9:21:17 PM
Iron	3.1	0.10	*	mg/L	5	11/15/2012 10:08:56 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 10:05:37 PM
Manganese	0.60	0.0020	*	mg/L	1	11/15/2012 10:05:37 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 7:25:59 PM
Zinc	0.066	0.010		mg/L	1	11/16/2012 9:21:17 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0088	0.0010		mg/L	1	11/19/2012 4:09:05 PM
Selenium	0.0072	0.0010		mg/L	1	11/19/2012 4:09:05 PM
Uranium	0.0011	0.0010		mg/L	1	11/19/2012 4:09:05 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0095	0.0025		mg/L	2.5	11/21/2012 11:29:37 AM
Selenium	0.011	0.0025		mg/L	2.5	11/16/2012 4:24:37 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 4:24:37 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-1

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 3:00:00 PM

Lab ID: 1211303-012

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	0.0022	0.00020	*	mg/L	1	11/12/2012 3:37:27 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Aniline	72	50		µg/L	1	11/9/2012 4:44:33 PM
Anthracene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 4:44:33 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 4:44:33 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Carbazole	ND	50		µg/L	1	11/9/2012 4:44:33 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Chrysene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 4:44:33 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 4:44:33 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 4:44:33 PM
2,4-Dimethylphenol	90	50		µg/L	1	11/9/2012 4:44:33 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 4:44:33 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 4:44:33 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** EP-1**Project:** 2012 Semi-Annual Ponds**Collection Date:** 11/6/2012 3:00:00 PM**Lab ID:** 1211303-012**Matrix:** AQUEOUS**Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Fluorene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Isophorone	ND	50		µg/L	1	11/9/2012 4:44:33 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2-Methylphenol	410	50		µg/L	1	11/9/2012 4:44:33 PM
3+4-Methylphenol	700	50		µg/L	1	11/9/2012 4:44:33 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 4:44:33 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 4:44:33 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 4:44:33 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 4:44:33 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 4:44:33 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Phenol	1400	100		µg/L	2	11/9/2012 7:23:13 PM
Pyrene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Pyridine	ND	50		µg/L	1	11/9/2012 4:44:33 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Surr: 2,4,6-Tribromophenol	76.9	42.9-124		%REC	1	11/9/2012 4:44:33 PM
Surr: 2-Fluorobiphenyl	67.6	40-108		%REC	1	11/9/2012 4:44:33 PM
Surr: 2-Fluorophenol	59.2	23.6-94.8		%REC	1	11/9/2012 4:44:33 PM
Surr: 4-Terphenyl-d14	60.6	41.9-103		%REC	1	11/9/2012 4:44:33 PM
Surr: Nitrobenzene-d5	67.3	42.6-114		%REC	1	11/9/2012 4:44:33 PM
Surr: Phenol-d5	45.5	20.3-74.7		%REC	1	11/9/2012 4:44:33 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Toluene	ND	10		µg/L	10	11/17/2012 4:26:44 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-1

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 3:00:00 PM

Lab ID: 1211303-012

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 4:26:44 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 4:26:44 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 4:26:44 AM
Acetone	410	100		µg/L	10	11/17/2012 4:26:44 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Bromoform	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 4:26:44 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 4:26:44 AM
Carbon disulfide	320	100		µg/L	10	11/17/2012 4:26:44 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 4:26:44 AM
Chloroform	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 4:26:44 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 4:26:44 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 4:26:44 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 4:26:44 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 4:26:44 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 4:26:44 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-1

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 3:00:00 PM

Lab ID: 1211303-012

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 4:26:44 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 4:26:44 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 4:26:44 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Styrene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 4:26:44 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 4:26:44 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 4:26:44 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 4:26:44 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 4:26:44 AM
Surr: 1,2-Dichloroethane-d4	85.0	70-130		%REC	10	11/17/2012 4:26:44 AM
Surr: 4-Bromofluorobenzene	92.3	70-130		%REC	10	11/17/2012 4:26:44 AM
Surr: Dibromofluoromethane	93.1	70-130		%REC	10	11/17/2012 4:26:44 AM
Surr: Toluene-d8	98.1	70-130		%REC	10	11/17/2012 4:26:44 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	5500	0.010		µmhos/cm	1	11/8/2012 1:31:32 PM
SM4500-H+B: PH						Analyst: JML
pH	8.79	1.68	*H	pH units	1	11/8/2012 1:31:32 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** BW To EP-2**Project:** 2012 Semi-Annual Ponds**Collection Date:** 11/6/2012 3:15:00 PM**Lab ID:** 1211303-013**Matrix:** AQUEOUS**Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	1.4	0.50		mg/L	5	11/8/2012 2:38:07 PM
Chloride	49	2.5		mg/L	5	11/8/2012 2:38:07 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	11/8/2012 2:38:07 PM
Bromide	ND	0.50		mg/L	5	11/8/2012 2:38:07 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	11/8/2012 2:38:07 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	11/8/2012 2:38:07 PM
Sulfate	1900	25		mg/L	50	11/13/2012 5:35:14 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Calcium	1.4	1.0		mg/L	1	11/15/2012 10:12:45 PM
Magnesium	ND	1.0		mg/L	1	11/15/2012 10:12:45 PM
Potassium	7.1	1.0		mg/L	1	11/16/2012 9:24:39 PM
Sodium	1200	20		mg/L	20	11/20/2012 7:47:32 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 9:30:00 AM

Lab ID: 1211303-014

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Toluene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Ethylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Naphthalene	ND	2.0		µg/L	1	11/8/2012 11:52:09 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	11/8/2012 11:52:09 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	11/8/2012 11:52:09 PM
Acetone	ND	10		µg/L	1	11/8/2012 11:52:09 PM
Bromobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Bromodichloromethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Bromoform	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Bromomethane	ND	3.0		µg/L	1	11/8/2012 11:52:09 PM
2-Butanone	ND	10		µg/L	1	11/8/2012 11:52:09 PM
Carbon disulfide	ND	10		µg/L	1	11/8/2012 11:52:09 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Chlorobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Chloroethane	ND	2.0		µg/L	1	11/8/2012 11:52:09 PM
Chloroform	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Chloromethane	ND	3.0		µg/L	1	11/8/2012 11:52:09 PM
2-Chlorotoluene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
4-Chlorotoluene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
cis-1,2-DCE	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/8/2012 11:52:09 PM
Dibromochloromethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Dibromomethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	11/8/2012 11:52:09 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
2-Hexanone	ND	10		µg/L	1	11/8/2012 11:52:09 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 9:30:00 AM

Lab ID: 1211303-014

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Isopropylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	11/8/2012 11:52:09 PM
Methylene Chloride	ND	3.0		µg/L	1	11/8/2012 11:52:09 PM
n-Butylbenzene	ND	3.0		µg/L	1	11/8/2012 11:52:09 PM
n-Propylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
sec-Butylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Styrene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
tert-Butylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/8/2012 11:52:09 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
trans-1,2-DCE	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/8/2012 11:52:09 PM
Vinyl chloride	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Xylenes, Total	ND	1.5		µg/L	1	11/8/2012 11:52:09 PM
Surr: 1,2-Dichloroethane-d4	83.3	70-130		%REC	1	11/8/2012 11:52:09 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	11/8/2012 11:52:09 PM
Surr: Dibromofluoromethane	88.0	70-130		%REC	1	11/8/2012 11:52:09 PM
Surr: Toluene-d8	93.1	70-130		%REC	1	11/8/2012 11:52:09 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2012 Semi-Annual Ponds

Collection Date:

Lab ID: 1211303-015

Matrix: TRIP BLANK

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Toluene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Ethylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Naphthalene	ND	2.0		µg/L	1	11/9/2012 12:19:55 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	11/9/2012 12:19:55 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	11/9/2012 12:19:55 AM
Acetone	ND	10		µg/L	1	11/9/2012 12:19:55 AM
Bromobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Bromodichloromethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Bromoform	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Bromomethane	ND	3.0		µg/L	1	11/9/2012 12:19:55 AM
2-Butanone	ND	10		µg/L	1	11/9/2012 12:19:55 AM
Carbon disulfide	ND	10		µg/L	1	11/9/2012 12:19:55 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Chlorobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Chloroethane	ND	2.0		µg/L	1	11/9/2012 12:19:55 AM
Chloroform	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Chloromethane	ND	3.0		µg/L	1	11/9/2012 12:19:55 AM
2-Chlorotoluene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
4-Chlorotoluene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
cis-1,2-DCE	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/9/2012 12:19:55 AM
Dibromochloromethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Dibromomethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	11/9/2012 12:19:55 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
2-Hexanone	ND	10		µg/L	1	11/9/2012 12:19:55 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2012 Semi-Annual Ponds

Collection Date:

Lab ID: 1211303-015

Matrix: TRIP BLANK

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Isopropylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	11/9/2012 12:19:55 AM
Methylene Chloride	ND	3.0		µg/L	1	11/9/2012 12:19:55 AM
n-Butylbenzene	ND	3.0		µg/L	1	11/9/2012 12:19:55 AM
n-Propylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
sec-Butylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Styrene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
tert-Butylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/9/2012 12:19:55 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
trans-1,2-DCE	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/9/2012 12:19:55 AM
Vinyl chloride	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Xylenes, Total	ND	1.5		µg/L	1	11/9/2012 12:19:55 AM
Surr: 1,2-Dichloroethane-d4	86.1	70-130		%REC	1	11/9/2012 12:19:55 AM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	11/9/2012 12:19:55 AM
Surr: Dibromofluoromethane	90.8	70-130		%REC	1	11/9/2012 12:19:55 AM
Surr: Toluene-d8	96.0	70-130		%REC	1	11/9/2012 12:19:55 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#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197083	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								
Selenium	ND	0.050								
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:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197084	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	0.52	0.0020	0.5000	0	104	85	115			
Calcium	52	1.0	50.00	0	105	85	115			
Chromium	0.50	0.0060	0.5000	0	101	85	115			
Copper	0.51	0.0060	0.5000	0	101	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Lead	0.51	0.0050	0.5000	0	103	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	101	85	115			
Selenium	0.49	0.050	0.5000	0	98.8	85	115			
Silver	0.098	0.0050	0.1000	0	98.1	85	115			
Sodium	52	1.0	50.00	0.07959	103	85	115			
Zinc	0.51	0.010	0.5000	0	101	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197156	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	ND	0.0020								
Cadmium	ND	0.0020								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH greater than 2

- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197156	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								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Selenium	ND	0.050								
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:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197157	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	0.52	0.0020	0.5000	0	103	85	115			
Calcium	51	1.0	50.00	0	103	85	115			
Chromium	0.50	0.0060	0.5000	0	99.8	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.50	0.020	0.5000	0	99.8	85	115			
Lead	0.50	0.0050	0.5000	0	101	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Manganese	0.50	0.0020	0.5000	0	99.3	85	115			
Potassium	51	1.0	50.00	0	103	85	115			
Selenium	0.51	0.050	0.5000	0	102	85	115			
Silver	0.099	0.0050	0.1000	0	98.6	85	115			
Sodium	53	1.0	50.00	0	105	85	115			
Zinc	0.49	0.010	0.5000	0	98.9	85	115			

Sample ID	1211303-001DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	EP-2	Batch ID:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197159	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.55	0.0020	0.5000	0.03360	104	70	130			
Cadmium	0.52	0.0020	0.5000	0	104	70	130			
Calcium	90	1.0	50.00	37.95	105	70	130			
Chromium	0.51	0.0060	0.5000	0.01220	100	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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	1211303-001DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	EP-2	Batch ID:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197159	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.57	0.0060	0.5000	0	114	70	130			
Lead	0.50	0.0050	0.5000	0.002850	99.0	70	130			
Magnesium	68	1.0	50.00	14.20	108	70	130			
Manganese	0.91	0.0020	0.5000	0.3607	109	70	130			
Potassium	85	1.0	50.00	30.90	107	70	130			
Silver	0.10	0.0050	0.1000	0.001830	100	70	130			
Zinc	0.57	0.010	0.5000	0.04521	104	70	130			

Sample ID	1211303-001DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	EP-2	Batch ID:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197160	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.55	0.0020	0.5000	0.03360	104	70	130	0.114	20	
Cadmium	0.52	0.0020	0.5000	0	104	70	130	0.295	20	
Calcium	89	1.0	50.00	37.95	103	70	130	1.10	20	
Chromium	0.51	0.0060	0.5000	0.01220	101	70	130	0.0505	20	
per	0.57	0.0060	0.5000	0	113	70	130	0.727	20	
Lead	0.50	0.0050	0.5000	0.002850	99.1	70	130	0.169	20	
Magnesium	67	1.0	50.00	14.20	105	70	130	2.01	20	
Manganese	0.91	0.0020	0.5000	0.3607	110	70	130	0.477	20	
Potassium	83	1.0	50.00	30.90	105	70	130	1.58	20	
Silver	0.10	0.0050	0.1000	0.001830	99.6	70	130	0.335	20	
Zinc	0.57	0.010	0.5000	0.04521	105	70	130	0.218	20	

Sample ID	1211303-001DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	EP-2	Batch ID:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197165	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	3.8	0.10	2.500	1.195	102	70	130			

Sample ID	1211303-001DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	EP-2	Batch ID:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197166	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	3.8	0.10	2.500	1.195	103	70	130	0.646	20	

Qualifiers:

- | | | |
|--|----|--|
| Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| Sample pH greater than 2 | R | RPD outside accepted recovery limits |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R6903	RunNo:	6903					
Prep Date:		Analysis Date:	11/14/2012	SeqNo:	199819	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Potassium ND 1.0

Sodium ND 1.0

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R6903	RunNo:	6903					
Prep Date:		Analysis Date:	11/14/2012	SeqNo:	199820	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Potassium 52 1.0 50.00 0 103 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:	R6960	RunNo:	6960					
Prep Date:		Analysis Date:	11/16/2012	SeqNo:	201334	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:	R6960	RunNo:	6960					
Prep Date:		Analysis Date:	11/16/2012	SeqNo:	201335	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Sodium 54 1.0 50.00 0 108 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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	MB-4772	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	4772	RunNo:	6903					
Prep Date:	11/12/2012	Analysis Date:	11/14/2012	SeqNo:	199823	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								
Selenium	ND	0.050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS-4772	SampType:	LCS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	LCSW	Batch ID:	4772	RunNo:	6903					
Prep Date:	11/12/2012	Analysis Date:	11/14/2012	SeqNo:	199824	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	97.3	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Calcium	51	1.0	50.00	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	97.3	85	115			
Copper	0.50	0.0060	0.5000	0	100	85	115			
Iron	0.49	0.020	0.5000	0	98.3	85	115			
Lead	0.48	0.0050	0.5000	0	95.4	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.47	0.0020	0.5000	0	94.6	85	115			
Potassium	50	1.0	50.00	0	101	85	115			
Selenium	0.51	0.050	0.5000	0	102	85	115			
Sodium	52	1.0	50.00	0	103	85	115			
Zinc	0.48	0.010	0.5000	0	96.2	85	115			

Sample ID	MB-4954	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	4954	RunNo:	7127					
Prep Date:	11/26/2012	Analysis Date:	11/27/2012	SeqNo:	206519	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 |
| U Value above quantitation range | 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 |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	LCS-4954		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	4954		RunNo:	7127			
Prep Date:	11/26/2012		Analysis Date:	11/27/2012		SeqNo:	206520		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	99.5	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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R6990	RunNo:	6990					
Prep Date:		Analysis Date:	11/19/2012	SeqNo:	202479	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	85	115			
Selenium	0.028	0.0010	0.02500	0	114	85	115			
Uranium	0.027	0.0010	0.02500	0	109	85	115			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R6990	RunNo:	6990					
Prep Date:		Analysis Date:	11/19/2012	SeqNo:	202480	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	85	115			
Selenium	0.028	0.0010	0.02500	0	113	85	115			
Uranium	0.027	0.0010	0.02500	0	106	85	115			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R6990	RunNo:	6990					
Prep Date:		Analysis Date:	11/19/2012	SeqNo:	202481	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	0.027	0.0010	0.02500	0	110	85	115			
Uranium	0.027	0.0010	0.02500	0	109	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R6990	RunNo:	6990					
Prep Date:		Analysis Date:	11/19/2012	SeqNo:	202482	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:	R6990	RunNo:	6990					
Prep Date:		Analysis Date:	11/19/2012	SeqNo:	202483	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.
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH greater than 2

- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R6990	RunNo:	6990					
Prep Date:		Analysis Date:	11/19/2012	SeqNo:	202484	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	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R7018	RunNo:	7018					
Prep Date:		Analysis Date:	11/20/2012	SeqNo:	203372	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	111	85	115			

Arsenic	0.028	0.0010	0.02500	0	111	85	115			
---------	-------	--------	---------	---	-----	----	-----	--	--	--

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R7018	RunNo:	7018					
Prep Date:		Analysis Date:	11/20/2012	SeqNo:	203374	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Arsenic	ND	0.0010								
---------	----	--------	--	--	--	--	--	--	--	--

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R7276	RunNo:	7276					
Prep Date:		Analysis Date:	12/3/2012	SeqNo:	211059	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.029	0.0010	0.02500	0	114	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Selenium	0.029	0.0010	0.02500	0	114	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:	R7276	RunNo:	7276					
Prep Date:		Analysis Date:	12/3/2012	SeqNo:	211062	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								
Uranium	ND	0.0010								

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	LLLCS-4772	SampType:	LCSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	4772	RunNo:	6965					
Prep Date:	11/12/2012	Analysis Date:	11/16/2012	SeqNo:	201524	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.051	0.0025	0.05000	0	103	85	115			
Selenium	0.057	0.0025	0.05000	0	114	85	115			
Uranium	0.051	0.0025	0.05000	0	102	85	115			

Sample ID	MB-4772	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	4772	RunNo:	6965					
Prep Date:	11/12/2012	Analysis Date:	11/16/2012	SeqNo:	201526	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								
Uranium	ND	0.0025								

Qualifiers:

Value exceeds Maximum Contaminant Level.
Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds

Sample ID	MB-4773	SampType:	mblk	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	4773	RunNo:	6853					
Prep Date:	11/12/2012	Analysis Date:	11/12/2012	SeqNo:	198561	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-4773	SampType:	lcs	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	4773	RunNo:	6853					
Prep Date:	11/12/2012	Analysis Date:	11/12/2012	SeqNo:	198562	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	99.3	80	120			

Sample ID	1211303-012EMS	SampType:	ms	TestCode:	EPA Method 245.1: Mercury					
Client ID:	EP-1	Batch ID:	4773	RunNo:	6853					
Prep Date:	11/12/2012	Analysis Date:	11/12/2012	SeqNo:	198587	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0063	0.00020	0.005000	0.002212	81.9	75	125			

Sample ID	1211303-012EMSD	SampType:	msd	TestCode:	EPA Method 245.1: Mercury					
Client ID:	EP-1	Batch ID:	4773	RunNo:	6853					
Prep Date:	11/12/2012	Analysis Date:	11/12/2012	SeqNo:	198588	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0065	0.00020	0.005000	0.002212	85.1	75	125	2.44	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 |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R6778	RunNo:	6778					
Prep Date:		Analysis Date:	11/8/2012	SeqNo:	196104	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:	R6778	RunNo:	6778					
Prep Date:		Analysis Date:	11/8/2012	SeqNo:	196105	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	99.9	90	110			
Chloride	5.0	0.50	5.000	0	101	90	110			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	96.1	90	110			
Bromide	2.5	0.10	2.500	0	98.3	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	10	0.50	10.00	0	99.8	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R6778	RunNo:	6778					
Prep Date:		Analysis Date:	11/8/2012	SeqNo:	196160	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:	R6778	RunNo:	6778					
Prep Date:		Analysis Date:	11/8/2012	SeqNo:	196162	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	101	90	110			
Chloride	4.7	0.50	5.000	0	93.6	90	110			
Nitrogen, Nitrite (As N)	0.93	0.10	1.000	0	93.2	90	110			

Qualifiers:

- | | | |
|--|----|--|
| Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| Sample pH greater than 2 | R | RPD outside accepted recovery limits |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	LCS		SampType:	LCS		TestCode:	EPA Method 300.0: Anions			
Client ID:	LCSW		Batch ID:	R6778		RunNo:	6778			
Prep Date:			Analysis Date:	11/8/2012		SeqNo:	196162		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.4	0.10	2.500	0	94.2	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	98.6	90	110			
Phosphorus, Orthophosphate (As P)	5.0	0.50	5.000	0	99.9	90	110			
Sulfate	9.5	0.50	10.00	0	95.4	90	110			

Sample ID	MB		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions			
Client ID:	PBW		Batch ID:	R6888		RunNo:	6888			
Prep Date:			Analysis Date:	11/13/2012		SeqNo:	199330		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								
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:	R6888		RunNo:	6888			
Prep Date:			Analysis Date:	11/13/2012		SeqNo:	199331		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.54	0.10	0.5000	0	107	90	110			
Chloride	5.2	0.50	5.000	0	103	90	110			
Sulfate	10	0.50	10.00	0	103	90	110			
Nitrate+Nitrite as N	3.7	0.20	3.500	0	105	90	110			

Sample ID	MB		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions			
Client ID:	PBW		Batch ID:	R6939		RunNo:	6939			
Prep Date:			Analysis Date:	11/15/2012		SeqNo:	200973		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	ND	0.10								

Sample ID	LCS		SampType:	LCS		TestCode:	EPA Method 300.0: Anions			
Client ID:	LCSW		Batch ID:	R6939		RunNo:	6939			
Prep Date:			Analysis Date:	11/15/2012		SeqNo:	200974		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.3	0.10	2.500	0	91.5	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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	MB	SampType:	MBLK		TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R7034		RunNo:	7034					
Prep Date:		Analysis Date:	11/20/2012		SeqNo:	203936	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:	R7034	RunNo:	7034						
Prep Date:		Analysis Date:	11/20/2012	SeqNo:	203937	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	97.5	90	110			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH greater than 2

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	5mL rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R6803	RunNo:	6803					
Prep Date:		Analysis Date:	11/8/2012	SeqNo:	196913	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								
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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R6803			RunNo: 6803					
Prep Date:		Analysis Date: 11/8/2012			SeqNo: 196913		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	8.4		10.00		83.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.0		10.00		90.4	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:	R6803	RunNo:	6803					
Prep Date:		Analysis Date:	11/8/2012	SeqNo:	196916	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	107	80	120			
Chlorobenzene	21	1.0	20.00	0	104	70	130			
1,1-Dichloroethene	17	1.0	20.00	0	86.9	73.7	122			
Trichloroethene (TCE)	18	1.0	20.00	0	87.7	70	130			
Surr: 1,2-Dichloroethane-d4	8.3		10.00		83.2	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R6803	RunNo:	6803					
Prep Date:		Analysis Date:	11/8/2012	SeqNo:	196916	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	8.9		10.00		88.9	70	130			
Surr: Toluene-d8	9.2		10.00		92.2	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R6966			RunNo: 6966					
Prep Date:		Analysis Date: 11/16/2012			SeqNo: 201683		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.9	70	130			
Toluene	23	1.0	20.00	0	115	80	120			
Chlorobenzene	22	1.0	20.00	0	108	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.0	73.7	122			
Trichloroethene (TCE)	20	1.0	20.00	0	99.8	70	130			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		82.2	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		91.0	70	130			
Surr: Dibromofluoromethane	8.2		10.00		82.3	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R6966			RunNo: 6966					
Prep Date:		Analysis Date: 11/16/2012			SeqNo: 201699		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								

Qualifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R6966			RunNo: 6966					
Prep Date:		Analysis Date: 11/16/2012			SeqNo: 201699		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
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								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	5mL rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R6966	RunNo:	6966					
Prep Date:		Analysis Date:	11/16/2012	SeqNo:	201699	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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	8.8		10.00		88.4	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.4	70	130			
Surr: Dibromofluoromethane	9.3		10.00		93.3	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID	100ng lcs2	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R6966	RunNo:	6966					
Prep Date:		Analysis Date:	11/17/2012	SeqNo:	201700	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	92.2	70	130			
Toluene	22	1.0	20.00	0	109	80	120			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.5	73.7	122			
Trichloroethene (TCE)	15	1.0	20.00	0	72.8	70	130			
Surr: 1,2-Dichloroethane-d4	8.0		10.00		79.9	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		91.7	70	130			
Surr: Dibromofluoromethane	8.9		10.00		88.9	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID	b7	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R6966	RunNo:	6966					
Prep Date:		Analysis Date:	11/17/2012	SeqNo:	201746	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								

Qualifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	b7	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES						
Client ID:	PBW	Batch ID: R6966		RunNo: 6966						
Prep Date:		Analysis Date: 11/17/2012		SeqNo: 201746		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
Bromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH greater than 2

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID b7	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R6966		RunNo: 6966							
Prep Date:	Analysis Date: 11/17/2012		SeqNo: 201746		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.3		10.00		83.3	70	130			
Surr: 4-Bromofluorobenzene	8.8		10.00		88.2	70	130			
Surr: Dibromofluoromethane	8.8		10.00		87.9	70	130			
Surr: Toluene-d8	9.9		10.00		98.5	70	130			

Sample ID 100ng lcs3	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch ID: R6966		RunNo: 6966							
Prep Date:	Analysis Date: 11/17/2012		SeqNo: 201747		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.5	70	130			
Toluene	23	1.0	20.00	0	117	80	120			
Chlorobenzene	22	1.0	20.00	0	110	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	100	73.7	122			
Trichloroethene (TCE)	16	1.0	20.00	0	80.4	70	130			
Surr: 1,2-Dichloroethane-d4	8.4		10.00		84.0	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		90.7	70	130			
Surr: Dibromofluoromethane	8.5		10.00		85.5	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Sample ID b3	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R6966		RunNo: 6966							
Prep Date:	Analysis Date: 11/16/2012		SeqNo: 202041		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								

Qualifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID: b3	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R6966		RunNo: 6966							
Prep Date:	Analysis Date: 11/16/2012		SeqNo: 202041		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
3-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								

Qualifiers:

Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
Value above quantitation range	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID: b3	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: R6966	RunNo: 6966								
Prep Date:	Analysis Date: 11/16/2012	SeqNo: 202041	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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		86.7	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		90.0	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.1	70	130			
Surr: Toluene-d8	9.9		10.00		98.7	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 |
| P Sample pH greater than 2 | R RPD outside accepted recovery limits |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	mb-4737	SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles						
Client ID:	PBW	Batch ID: 4737		RunNo: 6842						
Prep Date:	11/8/2012	Analysis Date: 11/9/2012		SeqNo: 198208		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								
1 benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	20								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

Qualifiers:

Value exceeds Maximum Contaminant Level.
Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	mb-4737	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	4737	RunNo:	6842					
Prep Date:	11/8/2012	Analysis Date:	11/9/2012	SeqNo:	198208	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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	220		200.0		108	42.9	124			
Surr: 2-Fluorobiphenyl	97		100.0		97.0	40	108			
Surr: 2-Fluorophenol	160		200.0		77.5	23.6	94.8			
Surr: 4-Terphenyl-d14	84		100.0		84.5	41.9	103			
Surr: Nitrobenzene-d5	100		100.0		102	42.6	114			
Surr: Phenol-d5	120		200.0		58.1	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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	Ics-4737		SampType: LCS	TestCode: EPA Method 8270C: Semivolatiles						
Client ID:	LCSW		Batch ID: 4737	RunNo: 6842						
Prep Date:	11/8/2012		Analysis Date: 11/9/2012	SeqNo: 198209		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	70	10	100.0	0	69.8	43.3	92			
4-Chloro-3-methylphenol	150	10	200.0	0	73.7	46.3	108			
2-Chlorophenol	140	10	200.0	0	68.6	38	99.3			
1,4-Dichlorobenzene	58	10	100.0	0	58.2	30.8	80.6			
2,4-Dinitrotoluene	75	10	100.0	0	74.8	46.1	117			
N-Nitrosodi-n-propylamine	83	10	100.0	0	82.7	39.3	110			
4-Nitrophenol	69	10	200.0	0	34.3	29.8	67			
Pentachlorophenol	110	20	200.0	0	54.6	32.2	95.7			
Phenol	91	10	200.0	0	45.6	27	64.8			
Pyrene	66	10	100.0	0	65.7	44.7	97.3			
1,2,4-Trichlorobenzene	62	10	100.0	0	62.2	36.6	86.7			
Surr: 2,4,6-Tribromophenol	200		200.0		100	42.9	124			
Surr: 2-Fluorobiphenyl	83		100.0		82.7	40	108			
Surr: 2-Fluorophenol	140		200.0		70.4	23.6	94.8			
Surr: 4-Terphenyl-d14	76		100.0		75.8	41.9	103			
Surr: Nitrobenzene-d5	86		100.0		85.8	42.6	114			
Surr: Phenol-d5	110		200.0		53.4	20.3	74.7			

Sample ID	Icsd-4737		SampType: LCSD	TestCode: EPA Method 8270C: Semivolatiles						
Client ID:	LCSS02		Batch ID: 4737	RunNo: 6842						
Prep Date:	11/8/2012		Analysis Date: 11/9/2012	SeqNo: 198210		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	72.5	43.3	92	3.74	25	
4-Chloro-3-methylphenol	140	10	200.0	0	70.6	46.3	108	4.32	32.7	
2-Chlorophenol	150	10	200.0	0	73.7	38	99.3	7.18	20	
1,4-Dichlorobenzene	60	10	100.0	0	60.2	30.8	80.6	3.45	20	
2,4-Dinitrotoluene	76	10	100.0	0	76.3	46.1	117	2.04	29.9	
N-Nitrosodi-n-propylamine	82	10	100.0	0	81.7	39.3	110	1.31	23.1	
4-Nitrophenol	72	10	200.0	0	35.8	29.8	67	4.16	40.5	
Pentachlorophenol	110	20	200.0	0	52.9	32.2	95.7	3.03	37.3	
Phenol	88	10	200.0	0	44.2	27	64.8	3.05	20	
Pyrene	71	10	100.0	0	70.6	44.7	97.3	7.25	26.5	
1,2,4-Trichlorobenzene	59	10	100.0	0	59.2	36.6	86.7	4.98	27.2	
Surr: 2,4,6-Tribromophenol	190		200.0		96.3	42.9	124	0	0	
Surr: 2-Fluorobiphenyl	85		100.0		84.7	40	108	0	0	
Surr: 2-Fluorophenol	140		200.0		68.9	23.6	94.8	0	0	
Surr: 4-Terphenyl-d14	76		100.0		76.1	41.9	103	0	0	
Surr: Nitrobenzene-d5	82		100.0		81.8	42.6	114	0	0	
Surr: Phenol-d5	100		200.0		51.6	20.3	74.7	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH greater than 2

- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	1211303-012c dup	SampType:	DUP	TestCode:	EPA 120.1: Specific Conductance					
Client ID:	EP-1	Batch ID:	R6782	RunNo:	6782					
Prep Date:		Analysis Date:	11/8/2012	SeqNo:	196507	Units:	µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	5500	0.010						0.145	20	

Qualifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	1211303-012c dup	SampType:	DUP	TestCode:	SM4500-H+B: pH					
Client ID:	EP-1	Batch ID:	R6782	RunNo:	6782					
Prep Date:		Analysis Date:	11/8/2012	SeqNo:	196521	Units:	pH units			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	8.80	1.68								*H

Qualifiers:

Value exceeds Maximum Contaminant Level.
Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2

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

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1211303
Received by/date: MA 11/07/12
Logged By: Ashley Gallegos 11/7/2012 1:56:00 PM AG
Completed By: Ashley Gallegos 11/7/2012 2:33:39 PM AG
Reviewed By: IO 11/07/2012

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? ~~Yes~~ ☒ No ☒
10. Was preservative added to bottles? Yes ☒ No ☒ NA ☐
OOIE-COE-ADDED 1mL HNO₃ FOR ACCEPTABLE PH. - 012D-ADDED 0.4mL HNO₃ FOR ACCEPTABLE, ...
11. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
15. Is it clear what analyses were requested? Yes ☒ No ☐
16. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved bottles checked for pH: 38
(<2 or >12 unless noted)
Adjusted? Yes
Checked by: AG

Special Handling (if applicable)

17. 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:			

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			

www.hallenvironmental.com

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

Analysis Request

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*

December 11, 2012

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

RE: 2012 Semi-Annual Ponds

OrderNo.: 1211303

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 15 sample(s) on 11/7/2012 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 10:15:00 AM

Lab ID: 1211303-001

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	84	5.0	*	mg/L	50	11/13/2012 3:06:19 PM
Chloride	290	10		mg/L	20	11/8/2012 8:25:46 AM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/8/2012 8:25:46 AM
Bromide	ND	2.0		mg/L	20	11/8/2012 8:25:46 AM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 8:25:46 AM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 8:25:46 AM
Sulfate	820	10		mg/L	20	11/8/2012 8:25:46 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.034	0.0020		mg/L	1	11/9/2012 4:14:41 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 4:14:41 PM
Calcium	38	1.0		mg/L	1	11/9/2012 4:14:41 PM
Chromium	0.012	0.0060		mg/L	1	11/9/2012 4:14:41 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 4:14:41 PM
Iron	1.2	0.10	*	mg/L	5	11/9/2012 4:27:47 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 4:14:41 PM
Magnesium	14	1.0		mg/L	1	11/9/2012 4:14:41 PM
Manganese	0.36	0.0020	*	mg/L	1	11/9/2012 4:14:41 PM
Potassium	31	1.0		mg/L	1	11/9/2012 4:14:41 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 4:14:41 PM
Sodium	830	10		mg/L	10	11/9/2012 4:50:35 PM
Zinc	0.045	0.010		mg/L	1	11/9/2012 4:14:41 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.037	0.0020		mg/L	1	11/15/2012 8:00:48 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 8:00:48 PM
Chromium	0.014	0.0060		mg/L	1	11/15/2012 8:00:48 PM
Copper	ND	0.0060		mg/L	1	11/15/2012 8:00:48 PM
Iron	1.3	0.10	*	mg/L	5	11/15/2012 8:04:21 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 8:00:48 PM
Manganese	0.37	0.0020	*	mg/L	1	11/15/2012 8:00:48 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 5:29:52 PM
Zinc	0.025	0.010		mg/L	1	11/15/2012 8:00:48 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.010	0.0010	*	mg/L	1	11/19/2012 3:10:28 PM
Selenium	0.0041	0.0010		mg/L	1	11/19/2012 4:48:27 PM
Uranium	ND	0.0010		mg/L	1	11/19/2012 3:10:28 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0093	0.0025		mg/L	2.5	11/16/2012 3:29:29 PM
Selenium	0.0053	0.0025		mg/L	2.5	11/16/2012 3:29:29 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 3:29:29 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 10:15:00 AM

Lab ID: 1211303-001

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	0.00033	0.00020		mg/L	1	11/12/2012 3:14:23 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Aniline	110	50		µg/L	1	11/9/2012 11:07:17 AM
Anthracene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Azobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Benzoic acid	ND	100		µg/L	1	11/9/2012 11:07:17 AM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 11:07:17 AM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Carbazole	ND	50		µg/L	1	11/9/2012 11:07:17 AM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Chrysene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 11:07:17 AM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 11:07:17 AM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 11:07:17 AM
2,4-Dimethylphenol	160	50		µg/L	1	11/9/2012 11:07:17 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 11:07:17 AM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 11:07:17 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 10:15:00 AM

Lab ID: 1211303-001

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Fluoranthene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Fluorene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Isophorone	ND	50		µg/L	1	11/9/2012 11:07:17 AM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2-Methylphenol	920	50		µg/L	1	11/9/2012 11:07:17 AM
3+4-Methylphenol	1300	250		µg/L	5	11/9/2012 5:15:10 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 11:07:17 AM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 11:07:17 AM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Naphthalene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 11:07:17 AM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 11:07:17 AM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 11:07:17 AM
Phenanthrene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Phenol	2300	250		µg/L	5	11/9/2012 5:15:10 PM
Pyrene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Pyridine	ND	50		µg/L	1	11/9/2012 11:07:17 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Surr: 2,4,6-Tribromophenol	85.1	42.9-124		%REC	1	11/9/2012 11:07:17 AM
Surr: 2-Fluorobiphenyl	75.9	40-108		%REC	1	11/9/2012 11:07:17 AM
Surr: 2-Fluorophenol	67.8	23.6-94.8		%REC	1	11/9/2012 11:07:17 AM
Surr: 4-Terphenyl-d14	64.9	41.9-103		%REC	1	11/9/2012 11:07:17 AM
Surr: Nitrobenzene-d5	78.0	42.6-114		%REC	1	11/9/2012 11:07:17 AM
Surr: Phenol-d5	51.1	20.3-74.7		%REC	1	11/9/2012 11:07:17 AM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Toluene	ND	10		µg/L	10	11/8/2012 11:24:29 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 10:15:00 AM

Lab ID: 1211303-001

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Naphthalene	ND	20		µg/L	10	11/8/2012 11:24:29 PM
1-Methylnaphthalene	ND	40		µg/L	10	11/8/2012 11:24:29 PM
2-Methylnaphthalene	ND	40		µg/L	10	11/8/2012 11:24:29 PM
Acetone	2400	500		µg/L	50	11/16/2012 8:32:00 PM
Bromobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Bromodichloromethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Bromoform	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Bromomethane	ND	30		µg/L	10	11/8/2012 11:24:29 PM
2-Butanone	380	100		µg/L	10	11/8/2012 11:24:29 PM
Carbon disulfide	ND	100		µg/L	10	11/8/2012 11:24:29 PM
Carbon Tetrachloride	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Chlorobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Chloroethane	ND	20		µg/L	10	11/8/2012 11:24:29 PM
Chloroform	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Chloromethane	ND	30		µg/L	10	11/8/2012 11:24:29 PM
2-Chlorotoluene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
4-Chlorotoluene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
cis-1,2-DCE	ND	10		µg/L	10	11/8/2012 11:24:29 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/8/2012 11:24:29 PM
Dibromochloromethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Dibromomethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Dichlorodifluoromethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,1-Dichloroethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,1-Dichloroethene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2-Dichloropropane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,3-Dichloropropane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
2,2-Dichloropropane	ND	20		µg/L	10	11/8/2012 11:24:29 PM
1,1-Dichloropropene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Hexachlorobutadiene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
2-Hexanone	ND	100		µg/L	10	11/8/2012 11:24:29 PM
Isopropylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
4-Isopropyltoluene	ND	10		µg/L	10	11/8/2012 11:24:29 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 10:15:00 AM

Lab ID: 1211303-001

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/8/2012 11:24:29 PM
Methylene Chloride	ND	30		µg/L	10	11/8/2012 11:24:29 PM
n-Butylbenzene	ND	30		µg/L	10	11/8/2012 11:24:29 PM
n-Propylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
sec-Butylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Styrene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
tert-Butylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/8/2012 11:24:29 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/8/2012 11:24:29 PM
trans-1,2-DCE	ND	10		µg/L	10	11/8/2012 11:24:29 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Trichloroethene (TCE)	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Trichlorofluoromethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/8/2012 11:24:29 PM
Vinyl chloride	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Xylenes, Total	ND	15		µg/L	10	11/8/2012 11:24:29 PM
Surr: 1,2-Dichloroethane-d4	82.7	70-130		%REC	10	11/8/2012 11:24:29 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	10	11/8/2012 11:24:29 PM
Surr: Dibromofluoromethane	90.6	70-130		%REC	10	11/8/2012 11:24:29 PM
Surr: Toluene-d8	93.5	70-130		%REC	10	11/8/2012 11:24:29 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	6900	0.50		µmhos/cm	50	11/8/2012 12:46:15 PM
SM4500-H+B: PH						Analyst: JML
pH	8.31	1.68	H	pH units	1	11/9/2012 5:46:39 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

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** EP-3**Project:** 2012 Semi-Annual Ponds**Collection Date:** 11/6/2012 10:35:00 AM**Lab ID:** 1211303-002**Matrix:** AQUEOUS**Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	77	2.0	*	mg/L	20	11/8/2012 8:50:35 AM
Chloride	2000	250		mg/L	500	11/8/2012 9:03:00 AM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/8/2012 8:50:35 AM
Bromide	ND	2.0		mg/L	20	11/8/2012 8:50:35 AM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 8:50:35 AM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 8:50:35 AM
Sulfate	1200	250		mg/L	500	11/8/2012 9:03:00 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.040	0.0020		mg/L	1	11/9/2012 4:58:03 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 4:58:03 PM
Calcium	140	10		mg/L	10	11/9/2012 5:03:40 PM
Chromium	0.0065	0.0060		mg/L	1	11/9/2012 4:58:03 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 4:58:03 PM
Iron	1.0	0.020	*	mg/L	1	11/9/2012 4:58:03 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 4:58:03 PM
Magnesium	46	1.0		mg/L	1	11/9/2012 4:58:03 PM
Manganese	0.52	0.0020	*	mg/L	1	11/9/2012 4:58:03 PM
Potassium	89	1.0		mg/L	1	11/9/2012 4:58:03 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 4:58:03 PM
Sodium	1800	100		mg/L	100	11/9/2012 5:07:37 PM
Zinc	0.076	0.010		mg/L	1	11/9/2012 4:58:03 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.039	0.0020		mg/L	1	11/15/2012 8:21:51 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 8:21:51 PM
Chromium	0.0076	0.0060		mg/L	1	11/15/2012 8:21:51 PM
Copper	ND	0.0060		mg/L	1	11/15/2012 8:21:51 PM
Iron	1.7	0.10	*	mg/L	5	11/15/2012 8:25:13 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 8:21:51 PM
Manganese	0.48	0.0020	*	mg/L	1	11/15/2012 8:21:51 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 5:37:11 PM
Zinc	0.031	0.010		mg/L	1	11/15/2012 8:21:51 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0081	0.0010		mg/L	1	11/19/2012 3:12:20 PM
Selenium	0.0053	0.0010		mg/L	1	11/19/2012 4:50:18 PM
Uranium	0.0014	0.0010		mg/L	1	11/19/2012 3:12:20 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0095	0.0025		mg/L	2.5	11/16/2012 3:33:25 PM
Selenium	0.0080	0.0025		mg/L	2.5	11/16/2012 3:33:25 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 3:33:25 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 10:35:00 AM

Lab ID: 1211303-002

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	0.00044	0.00020		mg/L	1	11/12/2012 3:16:08 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Acenaphthylene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Aniline	120	20		µg/L	1	11/9/2012 11:37:52 AM
Anthracene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Azobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Benz(a)anthracene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Benzo(a)pyrene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Benzo(b)fluoranthene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Benzo(g,h,i)perylene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Benzo(k)fluoranthene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Benzoic acid	ND	40		µg/L	1	11/9/2012 11:37:52 AM
Benzyl alcohol	26	20		µg/L	1	11/9/2012 11:37:52 AM
Bis(2-chloroethoxy)methane	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Bis(2-chloroethyl)ether	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Bis(2-chloroisopropyl)ether	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Bis(2-ethylhexyl)phthalate	ND	20		µg/L	1	11/9/2012 11:37:52 AM
4-Bromophenyl phenyl ether	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Butyl benzyl phthalate	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Carbazole	ND	20		µg/L	1	11/9/2012 11:37:52 AM
4-Chloro-3-methylphenol	ND	20		µg/L	1	11/9/2012 11:37:52 AM
4-Chloroaniline	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2-Chloronaphthalene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2-Chlorophenol	ND	20		µg/L	1	11/9/2012 11:37:52 AM
4-Chlorophenyl phenyl ether	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Chrysene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Di-n-butyl phthalate	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Di-n-octyl phthalate	ND	40		µg/L	1	11/9/2012 11:37:52 AM
Dibenz(a,h)anthracene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Dibenzofuran	ND	20		µg/L	1	11/9/2012 11:37:52 AM
1,2-Dichlorobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
1,3-Dichlorobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
1,4-Dichlorobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
3,3'-Dichlorobenzidine	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Diethyl phthalate	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Dimethyl phthalate	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2,4-Dichlorophenol	ND	40		µg/L	1	11/9/2012 11:37:52 AM
2,4-Dimethylphenol	100	20		µg/L	1	11/9/2012 11:37:52 AM
4,6-Dinitro-2-methylphenol	ND	40		µg/L	1	11/9/2012 11:37:52 AM
2,4-Dinitrophenol	ND	40		µg/L	1	11/9/2012 11:37:52 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 10:35:00 AM

Lab ID: 1211303-002

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2,6-Dinitrotoluene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Fluoranthene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Fluorene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Hexachlorobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Hexachlorobutadiene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Hexachlorocyclopentadiene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Hexachloroethane	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Indeno(1,2,3-cd)pyrene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Isophorone	ND	20		µg/L	1	11/9/2012 11:37:52 AM
1-Methylnaphthalene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2-Methylnaphthalene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2-Methylphenol	520	200		µg/L	10	11/9/2012 5:45:43 PM
3+4-Methylphenol	960	200		µg/L	10	11/9/2012 5:45:43 PM
N-Nitrosodi-n-propylamine	ND	20		µg/L	1	11/9/2012 11:37:52 AM
N-Nitrosodimethylamine	ND	20		µg/L	1	11/9/2012 11:37:52 AM
N-Nitrosodiphenylamine	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Naphthalene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2-Nitroaniline	ND	20		µg/L	1	11/9/2012 11:37:52 AM
3-Nitroaniline	ND	20		µg/L	1	11/9/2012 11:37:52 AM
4-Nitroaniline	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Nitrobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2-Nitrophenol	ND	20		µg/L	1	11/9/2012 11:37:52 AM
4-Nitrophenol	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Pentachlorophenol	ND	40		µg/L	1	11/9/2012 11:37:52 AM
Phenanthrene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Phenol	2000	200		µg/L	10	11/9/2012 5:45:43 PM
Pyrene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Pyridine	ND	20		µg/L	1	11/9/2012 11:37:52 AM
1,2,4-Trichlorobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2,4,5-Trichlorophenol	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2,4,6-Trichlorophenol	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Surr: 2,4,6-Tribromophenol	91.2	42.9-124		%REC	1	11/9/2012 11:37:52 AM
Surr: 2-Fluorobiphenyl	67.2	40-108		%REC	1	11/9/2012 11:37:52 AM
Surr: 2-Fluorophenol	71.6	23.6-94.8		%REC	1	11/9/2012 11:37:52 AM
Surr: 4-Terphenyl-d14	69.2	41.9-103		%REC	1	11/9/2012 11:37:52 AM
Surr: Nitrobenzene-d5	84.6	42.6-114		%REC	1	11/9/2012 11:37:52 AM
Surr: Phenol-d5	53.9	20.3-74.7		%REC	1	11/9/2012 11:37:52 AM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Toluene	ND	10		µg/L	10	11/16/2012 9:03:34 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 10:35:00 AM

Lab ID: 1211303-002

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Naphthalene	ND	20		µg/L	10	11/16/2012 9:03:34 PM
1-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 9:03:34 PM
2-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 9:03:34 PM
Acetone	240	100		µg/L	10	11/16/2012 9:03:34 PM
Bromobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Bromodichloromethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Bromoform	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Bromomethane	ND	30		µg/L	10	11/16/2012 9:03:34 PM
2-Butanone	ND	100		µg/L	10	11/16/2012 9:03:34 PM
Carbon disulfide	380	100		µg/L	10	11/16/2012 9:03:34 PM
Carbon Tetrachloride	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Chlorobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Chloroethane	ND	20		µg/L	10	11/16/2012 9:03:34 PM
Chloroform	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Chloromethane	ND	30		µg/L	10	11/16/2012 9:03:34 PM
2-Chlorotoluene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
4-Chlorotoluene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
cis-1,2-DCE	ND	10		µg/L	10	11/16/2012 9:03:34 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/16/2012 9:03:34 PM
Dibromochloromethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Dibromomethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Dichlorodifluoromethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,1-Dichloroethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,1-Dichloroethene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2-Dichloropropane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,3-Dichloropropane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
2,2-Dichloropropane	ND	20		µg/L	10	11/16/2012 9:03:34 PM
1,1-Dichloropropene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Hexachlorobutadiene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
2-Hexanone	ND	100		µg/L	10	11/16/2012 9:03:34 PM
Isopropylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
4-Isopropyltoluene	ND	10		µg/L	10	11/16/2012 9:03:34 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 10:35:00 AM

Lab ID: 1211303-002

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/16/2012 9:03:34 PM
Methylene Chloride	ND	30		µg/L	10	11/16/2012 9:03:34 PM
n-Butylbenzene	ND	30		µg/L	10	11/16/2012 9:03:34 PM
n-Propylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
sec-Butylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Styrene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
tert-Butylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/16/2012 9:03:34 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/16/2012 9:03:34 PM
trans-1,2-DCE	ND	10		µg/L	10	11/16/2012 9:03:34 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Trichloroethene (TCE)	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Trichlorofluoromethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/16/2012 9:03:34 PM
Vinyl chloride	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Xylenes, Total	ND	15		µg/L	10	11/16/2012 9:03:34 PM
Surr: 1,2-Dichloroethane-d4	86.3	70-130		%REC	10	11/16/2012 9:03:34 PM
Surr: 4-Bromofluorobenzene	86.9	70-130		%REC	10	11/16/2012 9:03:34 PM
Surr: Dibromofluoromethane	90.4	70-130		%REC	10	11/16/2012 9:03:34 PM
Surr: Toluene-d8	99.4	70-130		%REC	10	11/16/2012 9:03:34 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	12000	0.50		µmhos/cm	50	11/8/2012 12:50:45 PM
SM4500-H+B: PH						Analyst: JML
pH	7.84	1.68	H	pH units	1	11/9/2012 5:50:41 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 11:00:00 AM

Lab ID: 1211303-003

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	46	2.0	*	mg/L	20	11/8/2012 9:15:25 AM
Chloride	4000	250		mg/L	500	11/8/2012 9:52:39 AM
Bromide	ND	2.0		mg/L	20	11/8/2012 9:15:25 AM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 9:15:25 AM
Sulfate	980	10		mg/L	20	11/8/2012 9:15:25 AM
Nitrate+Nitrite as N	ND	10		mg/L	50	11/13/2012 5:47:39 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.068	0.0020		mg/L	1	11/9/2012 5:11:13 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 5:11:13 PM
Calcium	170	10		mg/L	10	11/9/2012 5:14:52 PM
Chromium	ND	0.0060		mg/L	1	11/9/2012 5:11:13 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 5:11:13 PM
Iron	0.29	0.020		mg/L	1	11/9/2012 5:11:13 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 5:11:13 PM
Magnesium	83	1.0		mg/L	1	11/9/2012 5:11:13 PM
Manganese	0.59	0.0020	*	mg/L	1	11/9/2012 5:11:13 PM
Potassium	220	10		mg/L	10	11/9/2012 5:14:52 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 5:11:13 PM
Sodium	2900	50		mg/L	50	11/9/2012 5:18:51 PM
Zinc	0.13	0.010		mg/L	1	11/9/2012 5:11:13 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.061	0.0020		mg/L	1	11/15/2012 8:29:18 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 8:29:18 PM
Chromium	ND	0.0060		mg/L	1	11/15/2012 8:29:18 PM
Copper	ND	0.0060		mg/L	1	11/15/2012 8:29:18 PM
Iron	1.2	0.10	*	mg/L	5	11/15/2012 8:32:24 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 8:29:18 PM
Manganese	0.52	0.0020	*	mg/L	1	11/15/2012 8:29:18 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 5:55:28 PM
Zinc	0.026	0.010		mg/L	1	11/15/2012 8:29:18 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0076	0.0010		mg/L	1	11/19/2012 3:14:13 PM
Selenium	ND	0.010		mg/L	10	12/3/2012 1:40:36 PM
Uranium	ND	0.0010		mg/L	1	11/19/2012 3:14:13 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.011	0.0025	*	mg/L	2.5	11/16/2012 3:37:21 PM
Selenium	0.011	0.0025		mg/L	2.5	11/16/2012 3:37:21 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 3:37:21 PM
EPA METHOD 245.1: MERCURY						Analyst: IDC

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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 11:00:00 AM

Lab ID: 1211303-003

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:17:55 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Aniline	60	50		µg/L	1	11/9/2012 12:08:30 PM
Anthracene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 12:08:30 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 12:08:30 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Carbazole	ND	50		µg/L	1	11/9/2012 12:08:30 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Chrysene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 12:08:30 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 12:08:30 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 12:08:30 PM
2,4-Dimethylphenol	72	50		µg/L	1	11/9/2012 12:08:30 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 12:08:30 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 12:08:30 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 11:00:00 AM

Lab ID: 1211303-003

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Fluorene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Isophorone	ND	50		µg/L	1	11/9/2012 12:08:30 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2-Methylphenol	290	50		µg/L	1	11/9/2012 12:08:30 PM
3+4-Methylphenol	530	50		µg/L	1	11/9/2012 12:08:30 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 12:08:30 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 12:08:30 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 12:08:30 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 12:08:30 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 12:08:30 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Phenol	1100	50		µg/L	1	11/9/2012 12:08:30 PM
Pyrene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Pyridine	ND	50		µg/L	1	11/9/2012 12:08:30 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Surr: 2,4,6-Tribromophenol	93.2	42.9-124		%REC	1	11/9/2012 12:08:30 PM
Surr: 2-Fluorobiphenyl	73.9	40-108		%REC	1	11/9/2012 12:08:30 PM
Surr: 2-Fluorophenol	71.1	23.6-94.8		%REC	1	11/9/2012 12:08:30 PM
Surr: 4-Terphenyl-d14	77.0	41.9-103		%REC	1	11/9/2012 12:08:30 PM
Surr: Nitrobenzene-d5	90.5	42.6-114		%REC	1	11/9/2012 12:08:30 PM
Surr: Phenol-d5	51.5	20.3-74.7		%REC	1	11/9/2012 12:08:30 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Toluene	ND	10		µg/L	10	11/16/2012 9:35:18 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 11:00:00 AM

Lab ID: 1211303-003

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Naphthalene	ND	20		µg/L	10	11/16/2012 9:35:18 PM
1-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 9:35:18 PM
2-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 9:35:18 PM
Acetone	130	100		µg/L	10	11/16/2012 9:35:18 PM
Bromobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Bromodichloromethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Bromoform	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Bromomethane	ND	30		µg/L	10	11/16/2012 9:35:18 PM
2-Butanone	ND	100		µg/L	10	11/16/2012 9:35:18 PM
Carbon disulfide	780	100		µg/L	10	11/16/2012 9:35:18 PM
Carbon Tetrachloride	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Chlorobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Chloroethane	ND	20		µg/L	10	11/16/2012 9:35:18 PM
Chloroform	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Chloromethane	ND	30		µg/L	10	11/16/2012 9:35:18 PM
2-Chlorotoluene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
4-Chlorotoluene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
cis-1,2-DCE	ND	10		µg/L	10	11/16/2012 9:35:18 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/16/2012 9:35:18 PM
Dibromochloromethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Dibromomethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Dichlorodifluoromethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,1-Dichloroethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,1-Dichloroethene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2-Dichloropropane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,3-Dichloropropane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
2,2-Dichloropropane	ND	20		µg/L	10	11/16/2012 9:35:18 PM
1,1-Dichloropropene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Hexachlorobutadiene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
2-Hexanone	ND	100		µg/L	10	11/16/2012 9:35:18 PM
Isopropylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
4-Isopropyltoluene	ND	10		µg/L	10	11/16/2012 9:35:18 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 11:00:00 AM

Lab ID: 1211303-003

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/16/2012 9:35:18 PM
Methylene Chloride	ND	30		µg/L	10	11/16/2012 9:35:18 PM
n-Butylbenzene	ND	30		µg/L	10	11/16/2012 9:35:18 PM
n-Propylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
sec-Butylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Styrene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
tert-Butylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/16/2012 9:35:18 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/16/2012 9:35:18 PM
trans-1,2-DCE	ND	10		µg/L	10	11/16/2012 9:35:18 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Trichloroethene (TCE)	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Trichlorofluoromethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/16/2012 9:35:18 PM
Vinyl chloride	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Xylenes, Total	ND	15		µg/L	10	11/16/2012 9:35:18 PM
Surr: 1,2-Dichloroethane-d4	86.2	70-130		%REC	10	11/16/2012 9:35:18 PM
Surr: 4-Bromofluorobenzene	97.0	70-130		%REC	10	11/16/2012 9:35:18 PM
Surr: Dibromofluoromethane	90.5	70-130		%REC	10	11/16/2012 9:35:18 PM
Surr: Toluene-d8	107	70-130		%REC	10	11/16/2012 9:35:18 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	19000	0.50		µmhos/cm	50	11/8/2012 12:54:39 PM
SM4500-H+B: PH						Analyst: JML
pH	8.13	1.68	H	pH units	1	11/9/2012 5:54:48 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** EP-5**Project:** 2012 Semi-Annual Ponds**Collection Date:** 11/6/2012 11:30:00 AM**Lab ID:** 1211303-004**Matrix:** AQUEOUS**Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	16	5.0	*	mg/L	50	11/13/2012 3:18:44 PM
Chloride	5600	250		mg/L	500	11/8/2012 10:42:18 AM
Nitrogen, Nitrite (As N)	ND	50		mg/L	500	11/8/2012 10:42:18 AM
Bromide	ND	2.0		mg/L	20	11/8/2012 10:29:54 AM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 10:29:54 AM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 10:29:54 AM
Sulfate	870	10		mg/L	20	11/8/2012 10:29:54 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.070	0.0020		mg/L	1	11/9/2012 5:33:30 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 5:33:30 PM
Calcium	170	10		mg/L	10	11/9/2012 5:38:48 PM
Chromium	ND	0.0060		mg/L	1	11/9/2012 5:33:30 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 5:33:30 PM
Iron	0.25	0.020		mg/L	1	11/9/2012 5:33:30 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 5:33:30 PM
Magnesium	110	10		mg/L	10	11/9/2012 5:38:48 PM
Manganese	0.45	0.0020	*	mg/L	1	11/9/2012 5:33:30 PM
Potassium	290	10		mg/L	10	11/9/2012 5:38:48 PM
Selenium	ND	0.050		mg/L	1	11/9/2012 5:33:30 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 5:33:30 PM
Sodium	3700	50		mg/L	50	11/14/2012 1:45:18 PM
Zinc	0.034	0.010		mg/L	1	11/9/2012 5:33:30 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.062	0.0020		mg/L	1	11/15/2012 8:36:29 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 8:36:29 PM
Chromium	ND	0.0060		mg/L	1	11/15/2012 8:36:29 PM
Copper	ND	0.0060		mg/L	1	11/15/2012 8:36:29 PM
Iron	0.63	0.020	*	mg/L	1	11/15/2012 8:36:29 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 8:36:29 PM
Manganese	0.39	0.0020	*	mg/L	1	11/15/2012 8:36:29 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 6:03:07 PM
Zinc	0.023	0.010		mg/L	1	11/15/2012 8:36:29 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0075	0.0010		mg/L	1	11/19/2012 3:16:05 PM
Uranium	ND	0.0010		mg/L	1	11/19/2012 3:16:05 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.012	0.0025	*	mg/L	2.5	11/16/2012 3:41:17 PM
Selenium	0.012	0.0025		mg/L	2.5	11/16/2012 3:41:17 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 3:41:17 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 11:30:00 AM

Lab ID: 1211303-004

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:19:41 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Aniline	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Anthracene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 12:39:12 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 12:39:12 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Carbazole	ND	50		µg/L	1	11/9/2012 12:39:12 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Chrysene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 12:39:12 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 12:39:12 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 12:39:12 PM
2,4-Dimethylphenol	74	50		µg/L	1	11/9/2012 12:39:12 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 12:39:12 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 12:39:12 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 11:30:00 AM

Lab ID: 1211303-004

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Fluorene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Isophorone	ND	50		µg/L	1	11/9/2012 12:39:12 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2-Methylphenol	270	50		µg/L	1	11/9/2012 12:39:12 PM
3+4-Methylphenol	400	50		µg/L	1	11/9/2012 12:39:12 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 12:39:12 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 12:39:12 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 12:39:12 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 12:39:12 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 12:39:12 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Phenol	900	50		µg/L	1	11/9/2012 12:39:12 PM
Pyrene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Pyridine	ND	50		µg/L	1	11/9/2012 12:39:12 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Surr: 2,4,6-Tribromophenol	78.1	42.9-124		%REC	1	11/9/2012 12:39:12 PM
Surr: 2-Fluorobiphenyl	64.5	40-108		%REC	1	11/9/2012 12:39:12 PM
Surr: 2-Fluorophenol	65.2	23.6-94.8		%REC	1	11/9/2012 12:39:12 PM
Surr: 4-Terphenyl-d14	72.2	41.9-103		%REC	1	11/9/2012 12:39:12 PM
Surr: Nitrobenzene-d5	90.5	42.6-114		%REC	1	11/9/2012 12:39:12 PM
Surr: Phenol-d5	53.2	20.3-74.7		%REC	1	11/9/2012 12:39:12 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Toluene	ND	10		µg/L	10	11/16/2012 10:07:03 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 11:30:00 AM

Lab ID: 1211303-004

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Naphthalene	ND	20		µg/L	10	11/16/2012 10:07:03 PM
1-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 10:07:03 PM
2-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 10:07:03 PM
Acetone	ND	100		µg/L	10	11/16/2012 10:07:03 PM
Bromobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Bromodichloromethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Bromoform	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Bromomethane	ND	30		µg/L	10	11/16/2012 10:07:03 PM
2-Butanone	ND	100		µg/L	10	11/16/2012 10:07:03 PM
Carbon disulfide	1300	100		µg/L	10	11/16/2012 10:07:03 PM
Carbon Tetrachloride	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Chlorobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Chloroethane	ND	20		µg/L	10	11/16/2012 10:07:03 PM
Chloroform	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Chloromethane	ND	30		µg/L	10	11/16/2012 10:07:03 PM
2-Chlorotoluene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
4-Chlorotoluene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
cis-1,2-DCE	ND	10		µg/L	10	11/16/2012 10:07:03 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/16/2012 10:07:03 PM
Dibromochloromethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Dibromomethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Dichlorodifluoromethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,1-Dichloroethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,1-Dichloroethene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2-Dichloropropane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,3-Dichloropropane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
2,2-Dichloropropane	ND	20		µg/L	10	11/16/2012 10:07:03 PM
1,1-Dichloropropene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Hexachlorobutadiene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
2-Hexanone	ND	100		µg/L	10	11/16/2012 10:07:03 PM
Isopropylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
4-Isopropyltoluene	ND	10		µg/L	10	11/16/2012 10:07:03 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-5

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 11:30:00 AM

Lab ID: 1211303-004

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JML
4-Methyl-2-pentanone	ND	100		µg/L	10	11/16/2012 10:07:03 PM
Methylene Chloride	ND	30		µg/L	10	11/16/2012 10:07:03 PM
n-Butylbenzene	ND	30		µg/L	10	11/16/2012 10:07:03 PM
n-Propylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
sec-Butylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Styrene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
tert-Butylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/16/2012 10:07:03 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/16/2012 10:07:03 PM
trans-1,2-DCE	ND	10		µg/L	10	11/16/2012 10:07:03 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Trichloroethene (TCE)	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Trichlorofluoromethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/16/2012 10:07:03 PM
Vinyl chloride	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Xylenes, Total	ND	15		µg/L	10	11/16/2012 10:07:03 PM
Surr: 1,2-Dichloroethane-d4	85.1	70-130		%REC	10	11/16/2012 10:07:03 PM
Surr: 4-Bromofluorobenzene	89.8	70-130		%REC	10	11/16/2012 10:07:03 PM
Surr: Dibromofluoromethane	91.0	70-130		%REC	10	11/16/2012 10:07:03 PM
Surr: Toluene-d8	97.9	70-130		%REC	10	11/16/2012 10:07:03 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	23000	0.50		µmhos/cm	50	11/8/2012 12:58:33 PM
SM4500-H+B: PH						Analyst: JML
pH	8.13	1.68	H	pH units	1	11/9/2012 5:58:57 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 12:00:00 PM

Lab ID: 1211303-005

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	21	2.0	*	mg/L	20	11/8/2012 10:54:42 AM
Chloride	11000	500		mg/L	1000	11/13/2012 3:43:34 PM
Nitrogen, Nitrite (As N)	ND	50		mg/L	500	11/8/2012 11:07:06 AM
Bromide	ND	2.0		mg/L	20	11/8/2012 10:54:42 AM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 10:54:42 AM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 10:54:42 AM
Sulfate	2500	250		mg/L	500	11/8/2012 11:07:06 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.11	0.020		mg/L	10	11/9/2012 5:50:29 PM
Cadmium	ND	0.020		mg/L	10	11/9/2012 5:50:29 PM
Calcium	410	10		mg/L	10	11/9/2012 5:50:29 PM
Chromium	ND	0.060		mg/L	10	11/9/2012 5:50:29 PM
Copper	ND	0.060		mg/L	10	11/9/2012 5:50:29 PM
Iron	0.053	0.020		mg/L	1	11/9/2012 5:46:40 PM
Lead	ND	0.050		mg/L	10	11/9/2012 5:50:29 PM
Magnesium	230	10		mg/L	10	11/9/2012 5:50:29 PM
Manganese	0.10	0.020	*	mg/L	10	11/9/2012 5:50:29 PM
Potassium	480	10		mg/L	10	11/9/2012 5:50:29 PM
Silver	ND	0.050		mg/L	10	11/9/2012 5:50:29 PM
Sodium	6500	100		mg/L	100	11/16/2012 11:43:42 AM
Zinc	ND	0.10		mg/L	10	11/9/2012 5:50:29 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.092	0.0020		mg/L	1	11/15/2012 8:44:22 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 8:44:22 PM
Chromium	0.0076	0.0060		mg/L	1	11/15/2012 8:44:22 PM
Copper	ND	0.0060		mg/L	1	11/15/2012 8:44:22 PM
Iron	0.14	0.020		mg/L	1	11/15/2012 8:44:22 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 8:44:22 PM
Manganese	0.086	0.0020	*	mg/L	1	11/15/2012 8:44:22 PM
Silver	ND	0.0050		mg/L	1	11/28/2012 2:28:37 PM
Zinc	ND	0.010		mg/L	1	11/15/2012 8:44:22 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.022	0.010	*	mg/L	10	11/20/2012 12:47:25 PM
Selenium	0.014	0.010		mg/L	10	12/3/2012 1:44:32 PM
Uranium	ND	0.0050		mg/L	5	11/19/2012 3:31:06 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.023	0.0025	*	mg/L	2.5	11/16/2012 3:45:13 PM
Selenium	0.024	0.0025		mg/L	2.5	11/16/2012 3:45:13 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 3:45:13 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 12:00:00 PM

Lab ID: 1211303-005

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:21:28 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Aniline	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Anthracene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 1:09:57 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Carbazole	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Chrysene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 1:09:57 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 1:09:57 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 1:09:57 PM
2,4-Dimethylphenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 1:09:57 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 1:09:57 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 12:00:00 PM

Lab ID: 1211303-005

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Fluorene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Isophorone	ND	50		µg/L	1	11/9/2012 1:09:57 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2-Methylphenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
3+4-Methylphenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 1:09:57 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 1:09:57 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 1:09:57 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 1:09:57 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Phenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Pyrene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Pyridine	ND	50		µg/L	1	11/9/2012 1:09:57 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Surr: 2,4,6-Tribromophenol	82.8	42.9-124		%REC	1	11/9/2012 1:09:57 PM
Surr: 2-Fluorobiphenyl	87.6	40-108		%REC	1	11/9/2012 1:09:57 PM
Surr: 2-Fluorophenol	71.1	23.6-94.8		%REC	1	11/9/2012 1:09:57 PM
Surr: 4-Terphenyl-d14	66.3	41.9-103		%REC	1	11/9/2012 1:09:57 PM
Surr: Nitrobenzene-d5	84.6	42.6-114		%REC	1	11/9/2012 1:09:57 PM
Surr: Phenol-d5	50.0	20.3-74.7		%REC	1	11/9/2012 1:09:57 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Toluene	ND	10		µg/L	10	11/16/2012 10:38:45 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 12:00:00 PM

Lab ID: 1211303-005

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Naphthalene	ND	20		µg/L	10	11/16/2012 10:38:45 PM
1-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 10:38:45 PM
2-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 10:38:45 PM
Acetone	ND	100		µg/L	10	11/16/2012 10:38:45 PM
Bromobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Bromodichloromethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Bromoform	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Bromomethane	ND	30		µg/L	10	11/16/2012 10:38:45 PM
2-Butanone	ND	100		µg/L	10	11/16/2012 10:38:45 PM
Carbon disulfide	ND	100		µg/L	10	11/16/2012 10:38:45 PM
Carbon Tetrachloride	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Chlorobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Chloroethane	ND	20		µg/L	10	11/16/2012 10:38:45 PM
Chloroform	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Chloromethane	ND	30		µg/L	10	11/16/2012 10:38:45 PM
2-Chlorotoluene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
4-Chlorotoluene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
cis-1,2-DCE	ND	10		µg/L	10	11/16/2012 10:38:45 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/16/2012 10:38:45 PM
Dibromochloromethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Dibromomethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Dichlorodifluoromethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,1-Dichloroethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,1-Dichloroethene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2-Dichloropropane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,3-Dichloropropane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
2,2-Dichloropropane	ND	20		µg/L	10	11/16/2012 10:38:45 PM
1,1-Dichloropropene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Hexachlorobutadiene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
2-Hexanone	ND	100		µg/L	10	11/16/2012 10:38:45 PM
Isopropylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
4-Isopropyltoluene	ND	10		µg/L	10	11/16/2012 10:38:45 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-6

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 12:00:00 PM

Lab ID: 1211303-005

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/16/2012 10:38:45 PM
Methylene Chloride	ND	30		µg/L	10	11/16/2012 10:38:45 PM
n-Butylbenzene	ND	30		µg/L	10	11/16/2012 10:38:45 PM
n-Propylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
sec-Butylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Styrene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
tert-Butylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/16/2012 10:38:45 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/16/2012 10:38:45 PM
trans-1,2-DCE	ND	10		µg/L	10	11/16/2012 10:38:45 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Trichloroethene (TCE)	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Trichlorofluoromethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/16/2012 10:38:45 PM
Vinyl chloride	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Xylenes, Total	ND	15		µg/L	10	11/16/2012 10:38:45 PM
Surr: 1,2-Dichloroethane-d4	86.2	70-130		%REC	10	11/16/2012 10:38:45 PM
Surr: 4-Bromofluorobenzene	95.5	70-130		%REC	10	11/16/2012 10:38:45 PM
Surr: Dibromofluoromethane	93.5	70-130		%REC	10	11/16/2012 10:38:45 PM
Surr: Toluene-d8	99.1	70-130		%REC	10	11/16/2012 10:38:45 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	42000	0.50		µmhos/cm	50	11/8/2012 1:02:32 PM
SM4500-H+B: PH						Analyst: JML
pH	7.93	1.68	H	pH units	1	11/9/2012 6:03:05 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 12:30:00 PM

Lab ID: 1211303-006

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	13	2.0	*	mg/L	20	11/8/2012 11:19:31 AM
Chloride	46000	2500		mg/L	5000	11/8/2012 11:31:56 AM
Bromide	380	20		mg/L	200	11/15/2012 6:17:44 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 11:19:31 AM
Sulfate	6400	2500		mg/L	5000	11/8/2012 11:31:56 AM
Nitrate+Nitrite as N	ND	40		mg/L	200	11/21/2012 12:05:05 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.17	0.020		mg/L	10	11/9/2012 5:58:22 PM
Cadmium	ND	0.020		mg/L	10	11/9/2012 5:58:22 PM
Calcium	960	10		mg/L	10	11/9/2012 5:58:22 PM
Chromium	ND	0.060		mg/L	10	11/9/2012 5:58:22 PM
Copper	ND	0.060		mg/L	10	11/9/2012 5:58:22 PM
Iron	ND	0.20		mg/L	10	11/9/2012 5:58:22 PM
Lead	ND	0.050		mg/L	10	11/9/2012 5:58:22 PM
Magnesium	750	10		mg/L	10	11/9/2012 5:58:22 PM
Manganese	0.92	0.020	*	mg/L	10	11/9/2012 5:58:22 PM
Potassium	1100	20		mg/L	20	11/9/2012 6:02:03 PM
Selenium	ND	0.50		mg/L	10	11/9/2012 5:58:22 PM
Silver	ND	0.050		mg/L	10	11/9/2012 5:58:22 PM
Sodium	25000	500		mg/L	500	11/16/2012 11:47:36 AM
Zinc	ND	0.10		mg/L	10	11/9/2012 5:58:22 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.15	0.010		mg/L	5	11/15/2012 8:55:49 PM
Cadmium	ND	0.010		mg/L	5	11/15/2012 8:55:49 PM
Chromium	ND	0.030		mg/L	5	11/15/2012 8:55:49 PM
Copper	ND	0.030		mg/L	5	11/15/2012 8:55:49 PM
Iron	0.13	0.10		mg/L	5	11/15/2012 8:55:49 PM
Lead	ND	0.025		mg/L	5	11/15/2012 8:55:49 PM
Manganese	0.94	0.010	*	mg/L	5	11/15/2012 8:55:49 PM
Selenium	ND	0.25		mg/L	5	11/15/2012 8:55:49 PM
Silver	ND	0.025		mg/L	5	11/27/2012 6:23:30 PM
Zinc	ND	0.050		mg/L	5	11/15/2012 8:55:49 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.048	0.010	*	mg/L	10	11/19/2012 4:55:56 PM
Uranium	ND	0.010		mg/L	10	11/19/2012 4:55:56 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.055	0.010	*	mg/L	10	11/21/2012 11:09:58 AM
Uranium	ND	0.010		mg/L	10	11/21/2012 11:09:58 AM
EPA METHOD 245.1: MERCURY						Analyst: IDC

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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 12:30:00 PM

Lab ID: 1211303-006

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:23:15 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Aniline	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Anthracene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 6:16:18 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Carbazole	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Chrysene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 6:16:18 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 6:16:18 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 6:16:18 PM
2,4-Dimethylphenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 6:16:18 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 6:16:18 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 12:30:00 PM

Lab ID: 1211303-006

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Fluorene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Isophorone	ND	50		µg/L	1	11/9/2012 6:16:18 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2-Methylphenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
3+4-Methylphenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 6:16:18 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 6:16:18 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 6:16:18 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 6:16:18 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Phenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Pyrene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Pyridine	ND	50		µg/L	1	11/9/2012 6:16:18 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Surr: 2,4,6-Tribromophenol	52.0	42.9-124		%REC	1	11/9/2012 6:16:18 PM
Surr: 2-Fluorobiphenyl	88.0	40-108		%REC	1	11/9/2012 6:16:18 PM
Surr: 2-Fluorophenol	34.8	23.6-94.8		%REC	1	11/9/2012 6:16:18 PM
Surr: 4-Terphenyl-d14	72.5	41.9-103		%REC	1	11/9/2012 6:16:18 PM
Surr: Nitrobenzene-d5	89.2	42.6-114		%REC	1	11/9/2012 6:16:18 PM
Surr: Phenol-d5	35.4	20.3-74.7		%REC	1	11/9/2012 6:16:18 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Toluene	ND	10		µg/L	10	11/17/2012 1:16:59 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 12:30:00 PM

Lab ID: 1211303-006

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 1:16:59 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 1:16:59 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 1:16:59 AM
Acetone	ND	100		µg/L	10	11/17/2012 1:16:59 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Bromoform	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 1:16:59 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 1:16:59 AM
Carbon disulfide	ND	100		µg/L	10	11/17/2012 1:16:59 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 1:16:59 AM
Chloroform	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 1:16:59 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 1:16:59 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 1:16:59 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 1:16:59 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 1:16:59 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 1:16:59 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-9

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 12:30:00 PM

Lab ID: 1211303-006

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 1:16:59 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 1:16:59 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 1:16:59 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Styrene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 1:16:59 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 1:16:59 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 1:16:59 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 1:16:59 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 1:16:59 AM
Surr: 1,2-Dichloroethane-d4	84.8	70-130		%REC	10	11/17/2012 1:16:59 AM
Surr: 4-Bromofluorobenzene	89.9	70-130		%REC	10	11/17/2012 1:16:59 AM
Surr: Dibromofluoromethane	90.7	70-130		%REC	10	11/17/2012 1:16:59 AM
Surr: Toluene-d8	100	70-130		%REC	10	11/17/2012 1:16:59 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	150000	0.50		µmhos/cm	50	11/8/2012 1:06:35 PM
SM4500-H+B: PH						Analyst: JML
pH	7.69	1.68	H	pH units	1	11/9/2012 6:07:15 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:00:00 PM

Lab ID: 1211303-007

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	71	20	*	mg/L	200	11/13/2012 4:20:48 PM
Chloride	250000	10000		mg/L	20000	11/13/2012 2:29:05 PM
Nitrogen, Nitrite (As N)	ND	500		mg/L	5000	11/8/2012 11:56:45 AM
Bromide	ND	500		mg/L	5000	11/8/2012 11:56:45 AM
Nitrogen, Nitrate (As N)	ND	500		mg/L	5000	11/8/2012 11:56:45 AM
Phosphorus, Orthophosphate (As P)	ND	2500		mg/L	5000	11/8/2012 11:56:45 AM
Sulfate	31000	2500		mg/L	5000	11/8/2012 11:56:45 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.26	0.040		mg/L	20	11/9/2012 6:29:11 PM
Cadmium	ND	0.040		mg/L	20	11/9/2012 6:29:11 PM
Calcium	550	20		mg/L	20	11/9/2012 6:29:11 PM
Chromium	ND	0.12		mg/L	20	11/9/2012 6:29:11 PM
Copper	ND	0.12		mg/L	20	11/9/2012 6:29:11 PM
Iron	ND	0.40		mg/L	20	11/9/2012 6:29:11 PM
Lead	ND	0.10		mg/L	20	11/9/2012 6:29:11 PM
Magnesium	5200	500		mg/L	500	11/9/2012 6:33:00 PM
Manganese	36	1.0	*	mg/L	500	11/9/2012 6:33:00 PM
Potassium	7600	500		mg/L	500	11/9/2012 6:33:00 PM
Selenium	ND	1.0		mg/L	20	11/9/2012 6:29:11 PM
Silver	ND	0.10		mg/L	20	11/9/2012 6:29:11 PM
Sodium	99000	2000		mg/L	2000	11/16/2012 2:03:02 PM
Zinc	ND	0.20		mg/L	20	11/9/2012 6:29:11 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.23	0.040		mg/L	20	11/28/2012 3:09:16 PM
Cadmium	ND	0.040		mg/L	20	11/28/2012 3:09:16 PM
Chromium	ND	0.12		mg/L	20	11/28/2012 3:09:16 PM
Copper	ND	0.12		mg/L	20	11/28/2012 3:09:16 PM
Iron	ND	0.20		mg/L	10	11/20/2012 7:43:28 PM
Lead	ND	0.10		mg/L	20	11/28/2012 3:09:16 PM
Manganese	34	0.10	*	mg/L	50	11/16/2012 9:02:45 PM
Selenium	ND	2.5		mg/L	50	11/16/2012 9:02:45 PM
Silver	ND	0.10		mg/L	20	11/28/2012 3:13:19 PM
Zinc	ND	0.20		mg/L	20	11/28/2012 3:09:16 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.47	0.020	*	mg/L	20	11/20/2012 12:51:21 PM
Uranium	0.0011	0.0010		mg/L	1	11/19/2012 3:34:51 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.50	0.020	*	mg/L	20	11/21/2012 11:13:53 AM
Uranium	ND	0.050		mg/L	50	11/21/2012 12:05:06 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:00:00 PM

Lab ID: 1211303-007

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:25:02 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Aniline	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Anthracene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 2:11:21 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Carbazole	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Chrysene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 2:11:21 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 2:11:21 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 2:11:21 PM
2,4-Dimethylphenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 2:11:21 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 2:11:21 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:00:00 PM

Lab ID: 1211303-007

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Fluorene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Isophorone	ND	50		µg/L	1	11/9/2012 2:11:21 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2-Methylphenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
3+4-Methylphenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 2:11:21 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 2:11:21 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 2:11:21 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 2:11:21 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Phenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Pyrene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Pyridine	ND	50		µg/L	1	11/9/2012 2:11:21 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Surr: 2,4,6-Tribromophenol	63.8	42.9-124		%REC	1	11/9/2012 2:11:21 PM
Surr: 2-Fluorobiphenyl	82.9	40-108		%REC	1	11/9/2012 2:11:21 PM
Surr: 2-Fluorophenol	64.0	23.6-94.8		%REC	1	11/9/2012 2:11:21 PM
Surr: 4-Terphenyl-d14	63.3	41.9-103		%REC	1	11/9/2012 2:11:21 PM
Surr: Nitrobenzene-d5	83.7	42.6-114		%REC	1	11/9/2012 2:11:21 PM
Surr: Phenol-d5	62.5	20.3-74.7		%REC	1	11/9/2012 2:11:21 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Toluene	ND	10		µg/L	10	11/17/2012 1:48:38 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:00:00 PM

Lab ID: 1211303-007

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 1:48:38 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 1:48:38 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 1:48:38 AM
Acetone	ND	100		µg/L	10	11/17/2012 1:48:38 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Bromoform	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 1:48:38 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 1:48:38 AM
Carbon disulfide	ND	100		µg/L	10	11/17/2012 1:48:38 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 1:48:38 AM
Chloroform	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 1:48:38 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 1:48:38 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 1:48:38 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 1:48:38 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 1:48:38 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 1:48:38 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-8

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:00:00 PM

Lab ID: 1211303-007

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 1:48:38 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 1:48:38 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 1:48:38 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Styrene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 1:48:38 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 1:48:38 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 1:48:38 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 1:48:38 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 1:48:38 AM
Surr: 1,2-Dichloroethane-d4	89.8	70-130		%REC	10	11/17/2012 1:48:38 AM
Surr: 4-Bromofluorobenzene	90.2	70-130		%REC	10	11/17/2012 1:48:38 AM
Surr: Dibromofluoromethane	89.4	70-130		%REC	10	11/17/2012 1:48:38 AM
Surr: Toluene-d8	104	70-130		%REC	10	11/17/2012 1:48:38 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	550000	1.0		µmhos/cm	100	11/9/2012 6:31:40 PM
SM4500-H+B: PH						Analyst: JML
pH	6.58	1.68	H	pH units	1	11/9/2012 6:11:25 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:30:00 PM

Lab ID: 1211303-008

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	37	10	*	mg/L	100	11/13/2012 4:33:12 PM
Chloride	81000	2500		mg/L	5000	11/8/2012 12:21:34 PM
Nitrogen, Nitrite (As N)	ND	500		mg/L	5000	11/8/2012 12:21:34 PM
Bromide	ND	500		mg/L	5000	11/8/2012 12:21:34 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 12:09:10 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 12:09:10 PM
Sulfate	15000	2500		mg/L	5000	11/8/2012 12:21:34 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.14	0.020		mg/L	10	11/9/2012 6:37:00 PM
Cadmium	ND	0.020		mg/L	10	11/9/2012 6:37:00 PM
Calcium	910	10		mg/L	10	11/9/2012 6:37:00 PM
Chromium	ND	0.060		mg/L	10	11/9/2012 6:37:00 PM
Copper	ND	0.060		mg/L	10	11/9/2012 6:37:00 PM
Iron	ND	0.20		mg/L	10	11/9/2012 6:37:00 PM
Lead	ND	0.050		mg/L	10	11/9/2012 6:37:00 PM
Magnesium	1400	20		mg/L	20	11/9/2012 6:40:42 PM
Manganese	0.72	0.020	*	mg/L	10	11/9/2012 6:37:00 PM
Potassium	2300	50		mg/L	50	11/14/2012 2:00:19 PM
Selenium	ND	0.50		mg/L	10	11/9/2012 6:37:00 PM
Silver	ND	0.050		mg/L	10	11/9/2012 6:37:00 PM
Sodium	43000	1000		mg/L	1000	11/14/2012 2:04:23 PM
Zinc	ND	0.10		mg/L	10	11/9/2012 6:37:00 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.081	0.010		mg/L	5	11/15/2012 9:25:21 PM
Cadmium	ND	0.010		mg/L	5	11/15/2012 9:25:21 PM
Chromium	ND	0.030		mg/L	5	11/15/2012 9:25:21 PM
Copper	ND	0.030		mg/L	5	11/16/2012 9:06:52 PM
Iron	ND	0.10		mg/L	5	11/15/2012 9:25:21 PM
Lead	ND	0.025		mg/L	5	11/15/2012 9:25:21 PM
Manganese	0.32	0.010	*	mg/L	5	11/15/2012 9:25:21 PM
Selenium	ND	0.25		mg/L	5	11/15/2012 9:25:21 PM
Silver	ND	0.025		mg/L	5	11/27/2012 6:59:03 PM
Zinc	ND	0.050		mg/L	5	11/15/2012 9:25:21 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.12	0.010	*	mg/L	10	11/19/2012 4:59:41 PM
Uranium	ND	0.020		mg/L	20	12/3/2012 1:48:28 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.14	0.020	*	mg/L	20	11/21/2012 12:09:01 PM
Uranium	ND	0.020		mg/L	20	11/21/2012 12:09:01 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:30:00 PM

Lab ID: 1211303-008

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:26:50 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Aniline	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Anthracene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 2:42:02 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Carbazole	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Chrysene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 2:42:02 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 2:42:02 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 2:42:02 PM
2,4-Dimethylphenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 2:42:02 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 2:42:02 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:30:00 PM

Lab ID: 1211303-008

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Fluorene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Isophorone	ND	50		µg/L	1	11/9/2012 2:42:02 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2-Methylphenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
3+4-Methylphenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 2:42:02 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 2:42:02 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 2:42:02 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 2:42:02 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Phenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Pyrene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Pyridine	ND	50		µg/L	1	11/9/2012 2:42:02 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Surr: 2,4,6-Tribromophenol	55.6	42.9-124		%REC	1	11/9/2012 2:42:02 PM
Surr: 2-Fluorobiphenyl	65.2	40-108		%REC	1	11/9/2012 2:42:02 PM
Surr: 2-Fluorophenol	48.7	23.6-94.8		%REC	1	11/9/2012 2:42:02 PM
Surr: 4-Terphenyl-d14	50.1	41.9-103		%REC	1	11/9/2012 2:42:02 PM
Surr: Nitrobenzene-d5	67.5	42.6-114		%REC	1	11/9/2012 2:42:02 PM
Surr: Phenol-d5	42.2	20.3-74.7		%REC	1	11/9/2012 2:42:02 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Toluene	ND	10		µg/L	10	11/17/2012 2:20:11 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:30:00 PM

Lab ID: 1211303-008

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 2:20:11 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 2:20:11 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 2:20:11 AM
Acetone	ND	100		µg/L	10	11/17/2012 2:20:11 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Bromoform	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 2:20:11 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 2:20:11 AM
Carbon disulfide	ND	100		µg/L	10	11/17/2012 2:20:11 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 2:20:11 AM
Chloroform	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 2:20:11 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 2:20:11 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 2:20:11 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 2:20:11 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 2:20:11 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 2:20:11 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-7

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:30:00 PM

Lab ID: 1211303-008

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 2:20:11 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 2:20:11 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 2:20:11 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Styrene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 2:20:11 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 2:20:11 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 2:20:11 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 2:20:11 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 2:20:11 AM
Surr: 1,2-Dichloroethane-d4	89.6	70-130		%REC	10	11/17/2012 2:20:11 AM
Surr: 4-Bromofluorobenzene	92.1	70-130		%REC	10	11/17/2012 2:20:11 AM
Surr: Dibromofluoromethane	93.5	70-130		%REC	10	11/17/2012 2:20:11 AM
Surr: Toluene-d8	98.7	70-130		%REC	10	11/17/2012 2:20:11 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	210000	0.50		µmhos/cm	50	11/8/2012 1:14:52 PM
SM4500-H+B: PH						Analyst: JML
pH	7.76	1.68	H	pH units	1	11/9/2012 6:15:30 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:45:00 PM

Lab ID: 1211303-009

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	40	2.0	*	mg/L	20	11/8/2012 12:58:50 PM
Chloride	3500	500		mg/L	1000	11/8/2012 1:11:14 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/8/2012 12:58:50 PM
Bromide	ND	2.0		mg/L	20	11/8/2012 12:58:50 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 12:58:50 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 12:58:50 PM
Sulfate	1300	500		mg/L	1000	11/8/2012 1:11:14 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.056	0.0020		mg/L	1	11/9/2012 6:49:50 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 6:49:50 PM
Calcium	170	10		mg/L	10	11/9/2012 6:53:28 PM
Chromium	ND	0.0060		mg/L	1	11/9/2012 6:49:50 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 6:49:50 PM
Iron	0.79	0.020	*	mg/L	1	11/9/2012 6:49:50 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 6:49:50 PM
Magnesium	80	1.0		mg/L	1	11/9/2012 6:49:50 PM
Manganese	0.40	0.0020	*	mg/L	1	11/9/2012 6:49:50 PM
Potassium	210	10		mg/L	10	11/9/2012 6:53:28 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 6:49:50 PM
Sodium	2800	100		mg/L	100	11/14/2012 2:08:08 PM
Zinc	0.043	0.010		mg/L	1	11/9/2012 6:49:50 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.051	0.0020		mg/L	1	11/15/2012 9:29:12 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 9:29:12 PM
Chromium	0.0065	0.0060		mg/L	1	11/15/2012 9:29:12 PM
Copper	ND	0.0060		mg/L	1	11/16/2012 9:10:43 PM
Iron	0.99	0.020	*	mg/L	1	11/15/2012 9:29:12 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 9:29:12 PM
Manganese	0.35	0.0020	*	mg/L	1	11/15/2012 9:29:12 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 7:03:00 PM
Zinc	0.024	0.010		mg/L	1	11/15/2012 9:29:12 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.013	0.0010	*	mg/L	1	11/19/2012 3:55:55 PM
Selenium	0.011	0.010		mg/L	10	12/3/2012 1:52:24 PM
Uranium	0.0012	0.0010		mg/L	1	11/19/2012 3:55:55 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.017	0.0025	*	mg/L	2.5	11/16/2012 4:00:57 PM
Selenium	0.014	0.0025		mg/L	2.5	11/16/2012 4:00:57 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 4:00:57 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:45:00 PM

Lab ID: 1211303-009

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:28:37 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Aniline	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Anthracene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 3:12:42 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Carbazole	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Chrysene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 3:12:42 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 3:12:42 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 3:12:42 PM
2,4-Dimethylphenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 3:12:42 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 3:12:42 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:45:00 PM

Lab ID: 1211303-009

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Fluorene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Isophorone	ND	50		µg/L	1	11/9/2012 3:12:42 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2-Methylphenol	200	50		µg/L	1	11/9/2012 3:12:42 PM
3+4-Methylphenol	330	50		µg/L	1	11/9/2012 3:12:42 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 3:12:42 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 3:12:42 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 3:12:42 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 3:12:42 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Phenol	680	50		µg/L	1	11/9/2012 3:12:42 PM
Pyrene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Pyridine	ND	50		µg/L	1	11/9/2012 3:12:42 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Surr: 2,4,6-Tribromophenol	91.4	42.9-124		%REC	1	11/9/2012 3:12:42 PM
Surr: 2-Fluorobiphenyl	80.2	40-108		%REC	1	11/9/2012 3:12:42 PM
Surr: 2-Fluorophenol	66.7	23.6-94.8		%REC	1	11/9/2012 3:12:42 PM
Surr: 4-Terphenyl-d14	71.3	41.9-103		%REC	1	11/9/2012 3:12:42 PM
Surr: Nitrobenzene-d5	77.3	42.6-114		%REC	1	11/9/2012 3:12:42 PM
Surr: Phenol-d5	48.6	20.3-74.7		%REC	1	11/9/2012 3:12:42 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Toluene	ND	10		µg/L	10	11/17/2012 2:51:50 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:45:00 PM

Lab ID: 1211303-009

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 2:51:50 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 2:51:50 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 2:51:50 AM
Acetone	120	100		µg/L	10	11/17/2012 2:51:50 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Bromoform	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 2:51:50 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 2:51:50 AM
Carbon disulfide	590	100		µg/L	10	11/17/2012 2:51:50 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 2:51:50 AM
Chloroform	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 2:51:50 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 2:51:50 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 2:51:50 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 2:51:50 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 2:51:50 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 2:51:50 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-11

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 1:45:00 PM

Lab ID: 1211303-009

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 2:51:50 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 2:51:50 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 2:51:50 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Styrene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 2:51:50 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 2:51:50 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 2:51:50 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 2:51:50 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 2:51:50 AM
Surr: 1,2-Dichloroethane-d4	81.6	70-130		%REC	10	11/17/2012 2:51:50 AM
Surr: 4-Bromofluorobenzene	91.7	70-130		%REC	10	11/17/2012 2:51:50 AM
Surr: Dibromofluoromethane	90.0	70-130		%REC	10	11/17/2012 2:51:50 AM
Surr: Toluene-d8	99.9	70-130		%REC	10	11/17/2012 2:51:50 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	18000	0.50		µmhos/cm	50	11/8/2012 1:19:18 PM
SM4500-H+B: PH						Analyst: JML
pH	8.06	1.68	H	pH units	1	11/9/2012 6:19:32 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:00:00 PM

Lab ID: 1211303-010

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	35	2.0	*	mg/L	20	11/8/2012 1:23:39 PM
Chloride	4000	250		mg/L	500	11/8/2012 1:36:03 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/8/2012 1:23:39 PM
Bromide	ND	2.0		mg/L	20	11/8/2012 1:23:39 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 1:23:39 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 1:23:39 PM
Sulfate	1400	250		mg/L	500	11/8/2012 1:36:03 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.057	0.0020		mg/L	1	11/9/2012 7:01:01 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 7:01:01 PM
Calcium	170	10		mg/L	10	11/9/2012 7:04:46 PM
Chromium	ND	0.0060		mg/L	1	11/9/2012 7:01:01 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 7:01:01 PM
Iron	0.70	0.020	*	mg/L	1	11/9/2012 7:01:01 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 7:01:01 PM
Magnesium	80	1.0		mg/L	1	11/9/2012 7:01:01 PM
Manganese	0.38	0.0020	*	mg/L	1	11/9/2012 7:01:01 PM
Potassium	220	10		mg/L	10	11/9/2012 7:04:46 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 7:01:01 PM
Sodium	2900	50		mg/L	50	11/14/2012 2:11:57 PM
Zinc	0.050	0.010		mg/L	1	11/9/2012 7:01:01 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.053	0.0020		mg/L	1	11/15/2012 9:36:51 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 9:36:51 PM
Chromium	ND	0.0060		mg/L	1	11/15/2012 9:36:51 PM
Copper	ND	0.0060		mg/L	1	11/16/2012 9:14:24 PM
Iron	0.86	0.020	*	mg/L	1	11/15/2012 9:36:51 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 9:36:51 PM
Manganese	0.32	0.0020	*	mg/L	1	11/15/2012 9:36:51 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 7:10:46 PM
Zinc	0.020	0.010		mg/L	1	11/15/2012 9:36:51 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.012	0.0010	*	mg/L	1	11/19/2012 4:05:21 PM
Selenium	0.010	0.010		mg/L	10	12/3/2012 1:56:20 PM
Uranium	0.0012	0.0010		mg/L	1	11/19/2012 4:05:21 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.015	0.0025	*	mg/L	2.5	11/21/2012 11:21:46 AM
Selenium	0.013	0.0025		mg/L	2.5	11/16/2012 4:16:45 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 4:16:45 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:00:00 PM

Lab ID: 1211303-010

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:30:22 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Aniline	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Anthracene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 3:43:19 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Carbazole	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Chrysene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 3:43:19 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 3:43:19 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 3:43:19 PM
2,4-Dimethylphenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 3:43:19 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 3:43:19 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:00:00 PM

Lab ID: 1211303-010

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Fluorene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Isophorone	ND	50		µg/L	1	11/9/2012 3:43:19 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2-Methylphenol	150	50		µg/L	1	11/9/2012 3:43:19 PM
3+4-Methylphenol	210	50		µg/L	1	11/9/2012 3:43:19 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 3:43:19 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 3:43:19 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 3:43:19 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 3:43:19 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Phenol	460	50		µg/L	1	11/9/2012 3:43:19 PM
Pyrene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Pyridine	ND	50		µg/L	1	11/9/2012 3:43:19 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Surr: 2,4,6-Tribromophenol	80.7	42.9-124		%REC	1	11/9/2012 3:43:19 PM
Surr: 2-Fluorobiphenyl	65.7	40-108		%REC	1	11/9/2012 3:43:19 PM
Surr: 2-Fluorophenol	56.2	23.6-94.8		%REC	1	11/9/2012 3:43:19 PM
Surr: 4-Terphenyl-d14	63.1	41.9-103		%REC	1	11/9/2012 3:43:19 PM
Surr: Nitrobenzene-d5	62.8	42.6-114		%REC	1	11/9/2012 3:43:19 PM
Surr: Phenol-d5	44.6	20.3-74.7		%REC	1	11/9/2012 3:43:19 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Toluene	ND	10		µg/L	10	11/17/2012 3:23:29 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:00:00 PM

Lab ID: 1211303-010

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 3:23:29 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 3:23:29 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 3:23:29 AM
Acetone	150	100		µg/L	10	11/17/2012 3:23:29 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Bromoform	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 3:23:29 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 3:23:29 AM
Carbon disulfide	610	100		µg/L	10	11/17/2012 3:23:29 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 3:23:29 AM
Chloroform	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 3:23:29 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 3:23:29 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 3:23:29 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 3:23:29 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 3:23:29 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 3:23:29 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12A

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:00:00 PM

Lab ID: 1211303-010

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 3:23:29 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 3:23:29 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 3:23:29 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Styrene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 3:23:29 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 3:23:29 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 3:23:29 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 3:23:29 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 3:23:29 AM
Surr: 1,2-Dichloroethane-d4	83.5	70-130		%REC	10	11/17/2012 3:23:29 AM
Surr: 4-Bromofluorobenzene	92.2	70-130		%REC	10	11/17/2012 3:23:29 AM
Surr: Dibromofluoromethane	87.4	70-130		%REC	10	11/17/2012 3:23:29 AM
Surr: Toluene-d8	98.5	70-130		%REC	10	11/17/2012 3:23:29 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	19000	0.50		µmhos/cm	50	11/8/2012 1:23:22 PM
SM4500-H+B: PH						Analyst: JML
pH	8.09	1.68	H	pH units	1	11/9/2012 6:23:34 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:25:00 PM

Lab ID: 1211303-011

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	71	2.0	*	mg/L	20	11/8/2012 1:48:27 PM
Chloride	1900	250		mg/L	500	11/8/2012 2:00:52 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/8/2012 1:48:27 PM
Bromide	ND	2.0		mg/L	20	11/8/2012 1:48:27 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 1:48:27 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 1:48:27 PM
Sulfate	1100	250		mg/L	500	11/8/2012 2:00:52 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.042	0.0020		mg/L	1	11/9/2012 7:27:58 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 7:27:58 PM
Calcium	150	10		mg/L	10	11/9/2012 7:31:58 PM
Chromium	0.0068	0.0060		mg/L	1	11/9/2012 7:27:58 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 7:27:58 PM
Iron	1.1	0.20	*	mg/L	10	11/9/2012 7:31:58 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 7:27:58 PM
Magnesium	49	1.0		mg/L	1	11/9/2012 7:27:58 PM
Manganese	0.52	0.0020	*	mg/L	1	11/9/2012 7:27:58 PM
Potassium	100	10		mg/L	10	11/9/2012 7:31:58 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 7:27:58 PM
Sodium	1700	50		mg/L	50	11/14/2012 2:27:51 PM
Zinc	0.072	0.010		mg/L	1	11/9/2012 7:27:58 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.040	0.0020		mg/L	1	11/15/2012 9:44:35 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 9:44:35 PM
Chromium	0.0069	0.0060		mg/L	1	11/15/2012 9:44:35 PM
Copper	ND	0.0060		mg/L	1	11/16/2012 9:18:06 PM
Iron	1.6	0.10	*	mg/L	5	11/15/2012 9:47:57 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 9:44:35 PM
Manganese	0.47	0.0020	*	mg/L	1	11/15/2012 9:44:35 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 7:18:32 PM
Zinc	0.031	0.010		mg/L	1	11/15/2012 9:44:35 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.013	0.0010	*	mg/L	1	11/19/2012 4:07:13 PM
Selenium	0.012	0.0010		mg/L	1	11/19/2012 4:07:13 PM
Uranium	0.0082	0.0010		mg/L	1	11/19/2012 4:07:13 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0092	0.0025		mg/L	2.5	11/21/2012 11:25:42 AM
Selenium	0.0089	0.0025		mg/L	2.5	11/16/2012 4:20:41 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 4:20:41 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:25:00 PM

Lab ID: 1211303-011

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	0.00042	0.00020		mg/L	1	11/12/2012 3:35:42 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Aniline	93	50		µg/L	1	11/9/2012 4:13:55 PM
Anthracene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 4:13:55 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 4:13:55 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Carbazole	ND	50		µg/L	1	11/9/2012 4:13:55 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Chrysene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 4:13:55 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 4:13:55 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 4:13:55 PM
2,4-Dimethylphenol	89	50		µg/L	1	11/9/2012 4:13:55 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 4:13:55 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 4:13:55 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:25:00 PM

Lab ID: 1211303-011

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Fluorene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Isophorone	ND	50		µg/L	1	11/9/2012 4:13:55 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2-Methylphenol	460	50		µg/L	1	11/9/2012 4:13:55 PM
3+4-Methylphenol	960	50		µg/L	1	11/9/2012 4:13:55 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 4:13:55 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 4:13:55 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 4:13:55 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 4:13:55 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 4:13:55 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Phenol	1800	250		µg/L	5	11/9/2012 6:52:42 PM
Pyrene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Pyridine	ND	50		µg/L	1	11/9/2012 4:13:55 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Surr: 2,4,6-Tribromophenol	87.4	42.9-124		%REC	1	11/9/2012 4:13:55 PM
Surr: 2-Fluorobiphenyl	74.2	40-108		%REC	1	11/9/2012 4:13:55 PM
Surr: 2-Fluorophenol	68.0	23.6-94.8		%REC	1	11/9/2012 4:13:55 PM
Surr: 4-Terphenyl-d14	70.2	41.9-103		%REC	1	11/9/2012 4:13:55 PM
Surr: Nitrobenzene-d5	77.2	42.6-114		%REC	1	11/9/2012 4:13:55 PM
Surr: Phenol-d5	50.6	20.3-74.7		%REC	1	11/9/2012 4:13:55 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Toluene	ND	10		µg/L	10	11/17/2012 3:55:05 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:25:00 PM

Lab ID: 1211303-011

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 3:55:05 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 3:55:05 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 3:55:05 AM
Acetone	240	100		µg/L	10	11/17/2012 3:55:05 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Bromoform	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 3:55:05 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 3:55:05 AM
Carbon disulfide	470	100		µg/L	10	11/17/2012 3:55:05 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 3:55:05 AM
Chloroform	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 3:55:05 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 3:55:05 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 3:55:05 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 3:55:05 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 3:55:05 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 3:55:05 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-12B

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 2:25:00 PM

Lab ID: 1211303-011

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 3:55:05 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 3:55:05 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 3:55:05 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Styrene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 3:55:05 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 3:55:05 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 3:55:05 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 3:55:05 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 3:55:05 AM
Surr: 1,2-Dichloroethane-d4	81.2	70-130		%REC	10	11/17/2012 3:55:05 AM
Surr: 4-Bromofluorobenzene	92.9	70-130		%REC	10	11/17/2012 3:55:05 AM
Surr: Dibromofluoromethane	92.0	70-130		%REC	10	11/17/2012 3:55:05 AM
Surr: Toluene-d8	97.0	70-130		%REC	10	11/17/2012 3:55:05 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	12000	0.50		µmhos/cm	50	11/8/2012 1:27:27 PM
SM4500-H+B: PH						Analyst: JML
pH	7.91	1.68	H	pH units	1	11/9/2012 6:27:36 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** EP-1**Project:** 2012 Semi-Annual Ponds**Collection Date:** 11/6/2012 3:00:00 PM**Lab ID:** 1211303-012**Matrix:** AQUEOUS**Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	72	5.0	*	mg/L	50	11/13/2012 4:45:36 PM
Chloride	570	100		mg/L	200	11/8/2012 2:25:42 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/8/2012 2:13:17 PM
Bromide	2.5	2.0		mg/L	20	11/8/2012 2:13:17 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 2:13:17 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 2:13:17 PM
Sulfate	980	10		mg/L	20	11/8/2012 2:13:17 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: ELS
Barium	0.034	0.0020		mg/L	1	11/9/2012 7:39:40 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 7:39:40 PM
Calcium	92	1.0		mg/L	1	11/9/2012 7:39:40 PM
Chromium	0.0073	0.0060		mg/L	1	11/9/2012 7:39:40 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 7:39:40 PM
Iron	2.2	0.20	*	mg/L	10	11/9/2012 7:43:00 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 7:39:40 PM
Magnesium	36	1.0		mg/L	1	11/9/2012 7:39:40 PM
Manganese	0.66	0.0020	*	mg/L	1	11/9/2012 7:39:40 PM
Potassium	62	1.0		mg/L	1	11/9/2012 7:39:40 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 7:39:40 PM
Sodium	970	50		mg/L	50	11/14/2012 2:31:35 PM
Zinc	0.099	0.010		mg/L	1	11/9/2012 7:39:40 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Barium	0.037	0.0020		mg/L	1	11/15/2012 10:05:37 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 10:05:37 PM
Chromium	0.0079	0.0060		mg/L	1	11/15/2012 10:05:37 PM
Copper	ND	0.0060		mg/L	1	11/16/2012 9:21:17 PM
Iron	3.1	0.10	*	mg/L	5	11/15/2012 10:08:56 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 10:05:37 PM
Manganese	0.60	0.0020	*	mg/L	1	11/15/2012 10:05:37 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 7:25:59 PM
Zinc	0.066	0.010		mg/L	1	11/16/2012 9:21:17 PM
EPA 200.8: DISSOLVED METALS						Analyst: DBD
Arsenic	0.0088	0.0010		mg/L	1	11/19/2012 4:09:05 PM
Selenium	0.0072	0.0010		mg/L	1	11/19/2012 4:09:05 PM
Uranium	0.0011	0.0010		mg/L	1	11/19/2012 4:09:05 PM
200.8 ICPMS METALS:TOTAL						Analyst: DBD
Arsenic	0.0095	0.0025		mg/L	2.5	11/21/2012 11:29:37 AM
Selenium	0.011	0.0025		mg/L	2.5	11/16/2012 4:24:37 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 4:24:37 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-1

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 3:00:00 PM

Lab ID: 1211303-012

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: IDC
Mercury	0.0022	0.00020	*	mg/L	1	11/12/2012 3:37:27 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Aniline	72	50		µg/L	1	11/9/2012 4:44:33 PM
Anthracene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 4:44:33 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 4:44:33 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Carbazole	ND	50		µg/L	1	11/9/2012 4:44:33 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Chrysene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 4:44:33 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 4:44:33 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 4:44:33 PM
2,4-Dimethylphenol	90	50		µg/L	1	11/9/2012 4:44:33 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 4:44:33 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 4:44:33 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** EP-1**Project:** 2012 Semi-Annual Ponds**Collection Date:** 11/6/2012 3:00:00 PM**Lab ID:** 1211303-012**Matrix:** AQUEOUS**Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Fluorene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Isophorone	ND	50		µg/L	1	11/9/2012 4:44:33 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2-Methylphenol	410	50		µg/L	1	11/9/2012 4:44:33 PM
3+4-Methylphenol	700	50		µg/L	1	11/9/2012 4:44:33 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 4:44:33 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 4:44:33 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 4:44:33 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 4:44:33 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 4:44:33 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Phenol	1400	100		µg/L	2	11/9/2012 7:23:13 PM
Pyrene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Pyridine	ND	50		µg/L	1	11/9/2012 4:44:33 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Surr: 2,4,6-Tribromophenol	76.9	42.9-124		%REC	1	11/9/2012 4:44:33 PM
Surr: 2-Fluorobiphenyl	67.6	40-108		%REC	1	11/9/2012 4:44:33 PM
Surr: 2-Fluorophenol	59.2	23.6-94.8		%REC	1	11/9/2012 4:44:33 PM
Surr: 4-Terphenyl-d14	60.6	41.9-103		%REC	1	11/9/2012 4:44:33 PM
Surr: Nitrobenzene-d5	67.3	42.6-114		%REC	1	11/9/2012 4:44:33 PM
Surr: Phenol-d5	45.5	20.3-74.7		%REC	1	11/9/2012 4:44:33 PM
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Toluene	ND	10		µg/L	10	11/17/2012 4:26:44 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-1

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 3:00:00 PM

Lab ID: 1211303-012

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Ethylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 4:26:44 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 4:26:44 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 4:26:44 AM
Acetone	410	100		µg/L	10	11/17/2012 4:26:44 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Bromoform	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 4:26:44 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 4:26:44 AM
Carbon disulfide	320	100		µg/L	10	11/17/2012 4:26:44 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 4:26:44 AM
Chloroform	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 4:26:44 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 4:26:44 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 4:26:44 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 4:26:44 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 4:26:44 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 4:26:44 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-1

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 3:00:00 PM

Lab ID: 1211303-012

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 4:26:44 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 4:26:44 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 4:26:44 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Styrene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 4:26:44 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 4:26:44 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 4:26:44 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 4:26:44 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 4:26:44 AM
Surr: 1,2-Dichloroethane-d4	85.0	70-130		%REC	10	11/17/2012 4:26:44 AM
Surr: 4-Bromofluorobenzene	92.3	70-130		%REC	10	11/17/2012 4:26:44 AM
Surr: Dibromofluoromethane	93.1	70-130		%REC	10	11/17/2012 4:26:44 AM
Surr: Toluene-d8	98.1	70-130		%REC	10	11/17/2012 4:26:44 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: JML
Conductivity	5500	0.010		µmhos/cm	1	11/8/2012 1:31:32 PM
SM4500-H+B: PH						Analyst: JML
pH	8.79	1.68	*H	pH units	1	11/8/2012 1:31:32 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

Analytical ReportLab Order **1211303**Date Reported: **12/11/2012****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Western Refining Southwest, Gallup**Client Sample ID:** BW To EP-2**Project:** 2012 Semi-Annual Ponds**Collection Date:** 11/6/2012 3:15:00 PM**Lab ID:** 1211303-013**Matrix:** AQUEOUS**Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: JRR
Fluoride	1.4	0.50		mg/L	5	11/8/2012 2:38:07 PM
Chloride	49	2.5		mg/L	5	11/8/2012 2:38:07 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	11/8/2012 2:38:07 PM
Bromide	ND	0.50		mg/L	5	11/8/2012 2:38:07 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	11/8/2012 2:38:07 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	11/8/2012 2:38:07 PM
Sulfate	1900	25		mg/L	50	11/13/2012 5:35:14 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: JLF
Calcium	1.4	1.0		mg/L	1	11/15/2012 10:12:45 PM
Magnesium	ND	1.0		mg/L	1	11/15/2012 10:12:45 PM
Potassium	7.1	1.0		mg/L	1	11/16/2012 9:24:39 PM
Sodium	1200	20		mg/L	20	11/20/2012 7:47:32 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 9:30:00 AM

Lab ID: 1211303-014

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Toluene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Ethylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Naphthalene	ND	2.0		µg/L	1	11/8/2012 11:52:09 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	11/8/2012 11:52:09 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	11/8/2012 11:52:09 PM
Acetone	ND	10		µg/L	1	11/8/2012 11:52:09 PM
Bromobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Bromodichloromethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Bromoform	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Bromomethane	ND	3.0		µg/L	1	11/8/2012 11:52:09 PM
2-Butanone	ND	10		µg/L	1	11/8/2012 11:52:09 PM
Carbon disulfide	ND	10		µg/L	1	11/8/2012 11:52:09 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Chlorobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Chloroethane	ND	2.0		µg/L	1	11/8/2012 11:52:09 PM
Chloroform	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Chloromethane	ND	3.0		µg/L	1	11/8/2012 11:52:09 PM
2-Chlorotoluene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
4-Chlorotoluene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
cis-1,2-DCE	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/8/2012 11:52:09 PM
Dibromochloromethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Dibromomethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	11/8/2012 11:52:09 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
2-Hexanone	ND	10		µg/L	1	11/8/2012 11:52:09 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FIELD BLANK

Project: 2012 Semi-Annual Ponds

Collection Date: 11/6/2012 9:30:00 AM

Lab ID: 1211303-014

Matrix: AQUEOUS

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Isopropylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	11/8/2012 11:52:09 PM
Methylene Chloride	ND	3.0		µg/L	1	11/8/2012 11:52:09 PM
n-Butylbenzene	ND	3.0		µg/L	1	11/8/2012 11:52:09 PM
n-Propylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
sec-Butylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Styrene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
tert-Butylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/8/2012 11:52:09 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
trans-1,2-DCE	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/8/2012 11:52:09 PM
Vinyl chloride	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Xylenes, Total	ND	1.5		µg/L	1	11/8/2012 11:52:09 PM
Surr: 1,2-Dichloroethane-d4	83.3	70-130		%REC	1	11/8/2012 11:52:09 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	11/8/2012 11:52:09 PM
Surr: Dibromofluoromethane	88.0	70-130		%REC	1	11/8/2012 11:52:09 PM
Surr: Toluene-d8	93.1	70-130		%REC	1	11/8/2012 11:52:09 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 1211303

Date Reported: 12/11/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2012 Semi-Annual Ponds

Collection Date:

Lab ID: 1211303-015

Matrix: TRIP BLANK

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Benzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Toluene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Ethylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Naphthalene	ND	2.0		µg/L	1	11/9/2012 12:19:55 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	11/9/2012 12:19:55 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	11/9/2012 12:19:55 AM
Acetone	ND	10		µg/L	1	11/9/2012 12:19:55 AM
Bromobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Bromodichloromethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Bromoform	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Bromomethane	ND	3.0		µg/L	1	11/9/2012 12:19:55 AM
2-Butanone	ND	10		µg/L	1	11/9/2012 12:19:55 AM
Carbon disulfide	ND	10		µg/L	1	11/9/2012 12:19:55 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Chlorobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Chloroethane	ND	2.0		µg/L	1	11/9/2012 12:19:55 AM
Chloroform	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Chloromethane	ND	3.0		µg/L	1	11/9/2012 12:19:55 AM
2-Chlorotoluene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
4-Chlorotoluene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
cis-1,2-DCE	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/9/2012 12:19:55 AM
Dibromochloromethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Dibromomethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	11/9/2012 12:19:55 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
2-Hexanone	ND	10		µg/L	1	11/9/2012 12:19:55 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

Analytical Report

Lab Order 1211303

Date Reported: 12/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2012 Semi-Annual Ponds

Collection Date:

Lab ID: 1211303-015

Matrix: TRIP BLANK

Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JMP
Isopropylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	11/9/2012 12:19:55 AM
Methylene Chloride	ND	3.0		µg/L	1	11/9/2012 12:19:55 AM
n-Butylbenzene	ND	3.0		µg/L	1	11/9/2012 12:19:55 AM
n-Propylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
sec-Butylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Styrene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
tert-Butylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/9/2012 12:19:55 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
trans-1,2-DCE	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/9/2012 12:19:55 AM
Vinyl chloride	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Xylenes, Total	ND	1.5		µg/L	1	11/9/2012 12:19:55 AM
Surr: 1,2-Dichloroethane-d4	86.1	70-130		%REC	1	11/9/2012 12:19:55 AM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	11/9/2012 12:19:55 AM
Surr: Dibromofluoromethane	90.8	70-130		%REC	1	11/9/2012 12:19:55 AM
Surr: Toluene-d8	96.0	70-130		%REC	1	11/9/2012 12:19:55 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#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197083	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								
Selenium	ND	0.050								
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:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197084	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	0.52	0.0020	0.5000	0	104	85	115			
Calcium	52	1.0	50.00	0	105	85	115			
Chromium	0.50	0.0060	0.5000	0	101	85	115			
Copper	0.51	0.0060	0.5000	0	101	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Lead	0.51	0.0050	0.5000	0	103	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	101	85	115			
Selenium	0.49	0.050	0.5000	0	98.8	85	115			
Silver	0.098	0.0050	0.1000	0	98.1	85	115			
Sodium	52	1.0	50.00	0.07959	103	85	115			
Zinc	0.51	0.010	0.5000	0	101	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197156	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH greater than 2
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197156	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								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Selenium	ND	0.050								
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:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197157	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	0.52	0.0020	0.5000	0	103	85	115			
Calcium	51	1.0	50.00	0	103	85	115			
Chromium	0.50	0.0060	0.5000	0	99.8	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.50	0.020	0.5000	0	99.8	85	115			
Lead	0.50	0.0050	0.5000	0	101	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Manganese	0.50	0.0020	0.5000	0	99.3	85	115			
Potassium	51	1.0	50.00	0	103	85	115			
Selenium	0.51	0.050	0.5000	0	102	85	115			
Silver	0.099	0.0050	0.1000	0	98.6	85	115			
Sodium	53	1.0	50.00	0	105	85	115			
Zinc	0.49	0.010	0.5000	0	98.9	85	115			

Sample ID	1211303-001DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	EP-2	Batch ID:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197159	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.55	0.0020	0.5000	0.03360	104	70	130			
Cadmium	0.52	0.0020	0.5000	0	104	70	130			
Calcium	90	1.0	50.00	37.95	105	70	130			
Chromium	0.51	0.0060	0.5000	0.01220	100	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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	1211303-001DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	EP-2	Batch ID:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197159	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.57	0.0060	0.5000	0	114	70	130			
Lead	0.50	0.0050	0.5000	0.002850	99.0	70	130			
Magnesium	68	1.0	50.00	14.20	108	70	130			
Manganese	0.91	0.0020	0.5000	0.3607	109	70	130			
Potassium	85	1.0	50.00	30.90	107	70	130			
Silver	0.10	0.0050	0.1000	0.001830	100	70	130			
Zinc	0.57	0.010	0.5000	0.04521	104	70	130			

Sample ID	1211303-001DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	EP-2	Batch ID:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197160	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.55	0.0020	0.5000	0.03360	104	70	130	0.114	20	
Cadmium	0.52	0.0020	0.5000	0	104	70	130	0.295	20	
Calcium	89	1.0	50.00	37.95	103	70	130	1.10	20	
Chromium	0.51	0.0060	0.5000	0.01220	101	70	130	0.0505	20	
Copper	0.57	0.0060	0.5000	0	113	70	130	0.727	20	
Lead	0.50	0.0050	0.5000	0.002850	99.1	70	130	0.169	20	
Magnesium	67	1.0	50.00	14.20	105	70	130	2.01	20	
Manganese	0.91	0.0020	0.5000	0.3607	110	70	130	0.477	20	
Potassium	83	1.0	50.00	30.90	105	70	130	1.58	20	
Silver	0.10	0.0050	0.1000	0.001830	99.6	70	130	0.335	20	
Zinc	0.57	0.010	0.5000	0.04521	105	70	130	0.218	20	

Sample ID	1211303-001DMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	EP-2	Batch ID:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197165	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	3.8	0.10	2.500	1.195	102	70	130			

Sample ID	1211303-001DMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	EP-2	Batch ID:	R6815	RunNo:	6815					
Prep Date:		Analysis Date:	11/9/2012	SeqNo:	197166	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	3.8	0.10	2.500	1.195	103	70	130	0.646	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH greater than 2

- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R6903	RunNo:	6903					
Prep Date:		Analysis Date:	11/14/2012	SeqNo:	199819	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R6903	RunNo:	6903					
Prep Date:		Analysis Date:	11/14/2012	SeqNo:	199820	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	52	1.0	50.00	0	103	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:	R6960	RunNo:	6960					
Prep Date:		Analysis Date:	11/16/2012	SeqNo:	201334	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:	R6960	RunNo:	6960					
Prep Date:		Analysis Date:	11/16/2012	SeqNo:	201335	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	54	1.0	50.00	0	108	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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	MB-4772	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	4772	RunNo:	6903					
Prep Date:	11/12/2012	Analysis Date:	11/14/2012	SeqNo:	199823	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								
Selenium	ND	0.050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS-4772	SampType:	LCS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	LCSW	Batch ID:	4772	RunNo:	6903					
Prep Date:	11/12/2012	Analysis Date:	11/14/2012	SeqNo:	199824	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	97.3	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Calcium	51	1.0	50.00	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	97.3	85	115			
Copper	0.50	0.0060	0.5000	0	100	85	115			
Iron	0.49	0.020	0.5000	0	98.3	85	115			
Lead	0.48	0.0050	0.5000	0	95.4	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.47	0.0020	0.5000	0	94.6	85	115			
Potassium	50	1.0	50.00	0	101	85	115			
Selenium	0.51	0.050	0.5000	0	102	85	115			
Sodium	52	1.0	50.00	0	103	85	115			
Zinc	0.48	0.010	0.5000	0	96.2	85	115			

Sample ID	MB-4954	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	4954	RunNo:	7127					
Prep Date:	11/26/2012	Analysis Date:	11/27/2012	SeqNo:	206519	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Qualifiers:

- | | | | |
|---|--|----|--|
| V | Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| L | Value above quantitation range | 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 |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	LCS-4954		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	4954		RunNo:	7127			
Prep Date:	11/26/2012		Analysis Date:	11/27/2012		SeqNo:	206520		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	99.5	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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R6990		RunNo: 6990					
Prep Date:			Analysis Date: 11/19/2012		SeqNo: 202479		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	85	115			
Selenium	0.028	0.0010	0.02500	0	114	85	115			
Uranium	0.027	0.0010	0.02500	0	109	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R6990		RunNo: 6990					
Prep Date:			Analysis Date: 11/19/2012		SeqNo: 202480		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	85	115			
Selenium	0.028	0.0010	0.02500	0	113	85	115			
Uranium	0.027	0.0010	0.02500	0	106	85	115			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R6990	RunNo:	6990					
Prep Date:		Analysis Date:	11/19/2012	SeqNo:	202481	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	0.027	0.0010	0.02500	0	110	85	115			
Uranium	0.027	0.0010	0.02500	0	109	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R6990	RunNo:	6990					
Prep Date:		Analysis Date:	11/19/2012	SeqNo:	202482	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:	R6990	RunNo:	6990					
Prep Date:		Analysis Date:	11/19/2012	SeqNo:	202483	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:

- | | | | |
|---|--|----|--|
| E | Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| L | Value above quantitation range | 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 |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R6990	RunNo:	6990					
Prep Date:		Analysis Date:	11/19/2012	SeqNo:	202484	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	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R7018	RunNo:	7018					
Prep Date:		Analysis Date:	11/20/2012	SeqNo:	203372	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic 0.028 0.0010 0.02500 0 111 85 115

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R7018	RunNo:	7018					
Prep Date:		Analysis Date:	11/20/2012	SeqNo:	203374	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:	R7276	RunNo:	7276					
Prep Date:		Analysis Date:	12/3/2012	SeqNo:	211059	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Selenium 0.029 0.0010 0.02500 0 114 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:	R7276	RunNo:	7276					
Prep Date:		Analysis Date:	12/3/2012	SeqNo:	211062	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Selenium ND 0.0010

Uranium ND 0.0010

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	LLLCS-4772	SampType:	LCSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	4772	RunNo:	6965					
Prep Date:	11/12/2012	Analysis Date:	11/16/2012	SeqNo:	201524	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.051	0.0025	0.05000	0	103	85	115			
Selenium	0.057	0.0025	0.05000	0	114	85	115			
Uranium	0.051	0.0025	0.05000	0	102	85	115			

Sample ID	MB-4772	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	4772	RunNo:	6965					
Prep Date:	11/12/2012	Analysis Date:	11/16/2012	SeqNo:	201526	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								
Uranium	ND	0.0025								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	MB-4773	SampType:	mbk	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	4773	RunNo:	6853					
Prep Date:	11/12/2012	Analysis Date:	11/12/2012	SeqNo:	198561	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-4773	SampType:	lcs	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	4773	RunNo:	6853					
Prep Date:	11/12/2012	Analysis Date:	11/12/2012	SeqNo:	198562	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	99.3	80	120			

Sample ID	1211303-012EMS	SampType:	ms	TestCode:	EPA Method 245.1: Mercury					
Client ID:	EP-1	Batch ID:	4773	RunNo:	6853					
Prep Date:	11/12/2012	Analysis Date:	11/12/2012	SeqNo:	198587	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0063	0.00020	0.005000	0.002212	81.9	75	125			

Sample ID	1211303-012EMSD	SampType:	msd	TestCode:	EPA Method 245.1: Mercury					
Client ID:	EP-1	Batch ID:	4773	RunNo:	6853					
Prep Date:	11/12/2012	Analysis Date:	11/12/2012	SeqNo:	198588	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0065	0.00020	0.005000	0.002212	85.1	75	125	2.44	20	

Qualifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R6778	RunNo:	6778					
Prep Date:		Analysis Date:	11/8/2012	SeqNo:	196104	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:	R6778	RunNo:	6778					
Prep Date:		Analysis Date:	11/8/2012	SeqNo:	196105	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	99.9	90	110			
Chloride	5.0	0.50	5.000	0	101	90	110			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	96.1	90	110			
Bromide	2.5	0.10	2.500	0	98.3	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	10	0.50	10.00	0	99.8	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R6778	RunNo:	6778					
Prep Date:		Analysis Date:	11/8/2012	SeqNo:	196160	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:	R6778	RunNo:	6778					
Prep Date:		Analysis Date:	11/8/2012	SeqNo:	196162	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	101	90	110			
Chloride	4.7	0.50	5.000	0	93.6	90	110			
Nitrogen, Nitrite (As N)	0.93	0.10	1.000	0	93.2	90	110			

Qualifiers:

- | | | |
|--|----|--|
| Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| Sample pH greater than 2 | R | RPD outside accepted recovery limits |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R6778		RunNo: 6778					
Prep Date:			Analysis Date: 11/8/2012		SeqNo: 196162		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.4	0.10	2.500	0	94.2	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	98.6	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.9	90	110			
Sulfate	9.5	0.50	10.00	0	95.4	90	110			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R6888			RunNo: 6888					
Prep Date:		Analysis Date: 11/13/2012			SeqNo: 199330		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								
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: R6888			RunNo: 6888					
Prep Date:		Analysis Date: 11/13/2012			SeqNo: 199331		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.54	0.10	0.5000	0	107	90	110			
Chloride	5.2	0.50	5.000	0	103	90	110			
Sulfate	10	0.50	10.00	0	103	90	110			
Nitrate+Nitrite as N	3.7	0.20	3.500	0	105	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R6939	RunNo:	6939					
Prep Date:		Analysis Date:	11/15/2012	SeqNo:	200973	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	ND	0.10								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R6939	RunNo:	6939					
Prep Date:		Analysis Date:	11/15/2012	SeqNo:	200974	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.3	0.10	2.500	0	91.5	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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R7034	RunNo:	7034					
Prep Date:		Analysis Date:	11/20/2012	SeqNo:	203936	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:	R7034	RunNo:	7034					
Prep Date:		Analysis Date:	11/20/2012	SeqNo:	203937	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	97.5	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
P Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	5mL rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R6803	RunNo:	6803					
Prep Date:		Analysis Date:	11/8/2012	SeqNo:	196913	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								
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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R6803			RunNo: 6803					
Prep Date:		Analysis Date: 11/8/2012			SeqNo: 196913		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								
-Trichloroethane	ND	1.0								
i, i, 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	8.4		10.00		83.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.0		10.00		90.4	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: R6803			RunNo: 6803					
Prep Date:		Analysis Date: 11/8/2012			SeqNo: 196916		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	107	80	120			
Chlorobenzene	21	1.0	20.00	0	104	70	130			
1,1-Dichloroethene	17	1.0	20.00	0	86.9	73.7	122			
Trichloroethene (TCE)	18	1.0	20.00	0	87.7	70	130			
Surr: 1,2-Dichloroethane-d4	8.3		10.00		83.2	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R6803	RunNo:	6803					
Prep Date:		Analysis Date:	11/8/2012	SeqNo:	196916	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	8.9		10.00		88.9	70	130			
Surr: Toluene-d8	9.2		10.00		92.2	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R6966			RunNo: 6966					
Prep Date:		Analysis Date: 11/16/2012			SeqNo: 201683		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.9	70	130			
Toluene	23	1.0	20.00	0	115	80	120			
Chlorobenzene	22	1.0	20.00	0	108	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.0	73.7	122			
Trichloroethene (TCE)	20	1.0	20.00	0	99.8	70	130			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		82.2	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		91.0	70	130			
Surr: Dibromofluoromethane	8.2		10.00		82.3	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	5mL rb	SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID:	R6966		RunNo:	6966				
Prep Date:		Analysis Date:	11/16/2012		SeqNo:	201699		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								

Qualifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R6966			RunNo: 6966					
Prep Date:		Analysis Date: 11/16/2012			SeqNo: 201699		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
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								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R6966			RunNo: 6966					
Prep Date:		Analysis Date: 11/16/2012			SeqNo: 201699		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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	8.8		10.00		88.4	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.4	70	130			
Surr: Dibromofluoromethane	9.3		10.00		93.3	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID	100ng lcs2	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R6966			RunNo: 6966					
Prep Date:		Analysis Date: 11/17/2012			SeqNo: 201700		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	92.2	70	130			
Toluene	22	1.0	20.00	0	109	80	120			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.5	73.7	122			
Trichloroethene (TCE)	15	1.0	20.00	0	72.8	70	130			
Surr: 1,2-Dichloroethane-d4	8.0		10.00		79.9	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		91.7	70	130			
Surr: Dibromofluoromethane	8.9		10.00		88.9	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID b7	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R6966			RunNo: 6966						
Prep Date:	Analysis Date: 11/17/2012			SeqNo: 201746		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								

Qualifiers:

- | | |
|--|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | 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 |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID: b7	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R6966		RunNo: 6966							
Prep Date:	Analysis Date: 11/17/2012		SeqNo: 201746		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
Bromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH greater than 2

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID b7	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R6966		RunNo: 6966							
Prep Date:	Analysis Date: 11/17/2012		SeqNo: 201746		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.3		10.00		83.3	70	130			
Surr: 4-Bromofluorobenzene	8.8		10.00		88.2	70	130			
Surr: Dibromofluoromethane	8.8		10.00		87.9	70	130			
Surr: Toluene-d8	9.9		10.00		98.5	70	130			

Sample ID 100ng lcs3	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch ID: R6966		RunNo: 6966							
Prep Date:	Analysis Date: 11/17/2012		SeqNo: 201747		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.5	70	130			
Toluene	23	1.0	20.00	0	117	80	120			
Chlorobenzene	22	1.0	20.00	0	110	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	100	73.7	122			
Trichloroethene (TCE)	16	1.0	20.00	0	80.4	70	130			
Surr: 1,2-Dichloroethane-d4	8.4		10.00		84.0	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		90.7	70	130			
Surr: Dibromofluoromethane	8.5		10.00		85.5	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Sample ID b3	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R6966		RunNo: 6966							
Prep Date:	Analysis Date: 11/16/2012		SeqNo: 202041		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								

Qualifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	b3	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R6966			RunNo: 6966					
Prep Date:		Analysis Date: 11/16/2012			SeqNo: 202041		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
o-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- c Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID b3	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: R6966	RunNo: 6966								
Prep Date:	Analysis Date: 11/16/2012	SeqNo: 202041	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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		86.7	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		90.0	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.1	70	130			
Surr: Toluene-d8	9.9		10.00		98.7	70	130			

Qualifiers:

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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	mb-4737	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	4737	RunNo:	6842					
Prep Date:	11/8/2012	Analysis Date:	11/9/2012	SeqNo:	198208	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								
1 benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	20								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH greater than 2

- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	mb-4737		SampType:	MBLK		TestCode:	EPA Method 8270C: Semivolatiles				
Client ID:	PBW		Batch ID:	4737		RunNo:	6842				
Prep Date:	11/8/2012		Analysis Date:	11/9/2012		SeqNo:	198208		Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
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	220		200.0		108	42.9	124				
Surr: 2-Fluorobiphenyl	97		100.0		97.0	40	108				
Surr: 2-Fluorophenol	160		200.0		77.5	23.6	94.8				
Surr: 4-Terphenyl-d14	84		100.0		84.5	41.9	103				
Surr: Nitrobenzene-d5	100		100.0		102	42.6	114				
Surr: Phenol-d5	120		200.0		58.1	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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	Ics-4737		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 4737		RunNo: 6842					
Prep Date:	11/8/2012		Analysis Date: 11/9/2012		SeqNo: 198209		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	70	10	100.0	0	69.8	43.3	92			
4-Chloro-3-methylphenol	150	10	200.0	0	73.7	46.3	108			
2-Chlorophenol	140	10	200.0	0	68.6	38	99.3			
1,4-Dichlorobenzene	58	10	100.0	0	58.2	30.8	80.6			
2,4-Dinitrotoluene	75	10	100.0	0	74.8	46.1	117			
N-Nitrosodi-n-propylamine	83	10	100.0	0	82.7	39.3	110			
4-Nitrophenol	69	10	200.0	0	34.3	29.8	67			
Pentachlorophenol	110	20	200.0	0	54.6	32.2	95.7			
Phenol	91	10	200.0	0	45.6	27	64.8			
Pyrene	66	10	100.0	0	65.7	44.7	97.3			
1,2,4-Trichlorobenzene	62	10	100.0	0	62.2	36.6	86.7			
Surr: 2,4,6-Tribromophenol	200		200.0		100	42.9	124			
Surr: 2-Fluorobiphenyl	83		100.0		82.7	40	108			
Surr: 2-Fluorophenol	140		200.0		70.4	23.6	94.8			
Surr: 4-Terphenyl-d14	76		100.0		75.8	41.9	103			
Surr: Nitrobenzene-d5	86		100.0		85.8	42.6	114			
Surr: Phenol-d5	110		200.0		53.4	20.3	74.7			

Sample ID	Icsd-4737		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 4737		RunNo: 6842					
Prep Date:	11/8/2012		Analysis Date: 11/9/2012		SeqNo: 198210		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	72.5	43.3	92	3.74	25	
4-Chloro-3-methylphenol	140	10	200.0	0	70.6	46.3	108	4.32	32.7	
2-Chlorophenol	150	10	200.0	0	73.7	38	99.3	7.18	20	
1,4-Dichlorobenzene	60	10	100.0	0	60.2	30.8	80.6	3.45	20	
2,4-Dinitrotoluene	76	10	100.0	0	76.3	46.1	117	2.04	29.9	
N-Nitrosodi-n-propylamine	82	10	100.0	0	81.7	39.3	110	1.31	23.1	
4-Nitrophenol	72	10	200.0	0	35.8	29.8	67	4.16	40.5	
Pentachlorophenol	110	20	200.0	0	52.9	32.2	95.7	3.03	37.3	
Phenol	88	10	200.0	0	44.2	27	64.8	3.05	20	
Pyrene	71	10	100.0	0	70.6	44.7	97.3	7.25	26.5	
1,2,4-Trichlorobenzene	59	10	100.0	0	59.2	36.6	86.7	4.98	27.2	
Surr: 2,4,6-Tribromophenol	190		200.0		96.3	42.9	124	0	0	
Surr: 2-Fluorobiphenyl	85		100.0		84.7	40	108	0	0	
Surr: 2-Fluorophenol	140		200.0		68.9	23.6	94.8	0	0	
Surr: 4-Terphenyl-d14	76		100.0		76.1	41.9	103	0	0	
Surr: Nitrobenzene-d5	82		100.0		81.8	42.6	114	0	0	
Surr: Phenol-d5	100		200.0		51.6	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

- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	1211303-012c dup	SampType:	DUP	TestCode:	EPA 120.1: Specific Conductance					
Client ID:	EP-1	Batch ID:	R6782	RunNo:	6782					
Prep Date:		Analysis Date:	11/8/2012	SeqNo:	196507	Units:	µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	5500	0.010						0.145	20	

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211303

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	1211303-012c dup			SampType:	DUP		TestCode:	SM4500-H+B: pH			
Client ID:	EP-1			Batch ID:	R6782		RunNo:	6782			
Prep Date:				Analysis Date:	11/8/2012		SeqNo:	196521		Units:	pH units
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
pH	8.80	1.68								*H	

Qualifiers:

- | | | |
|--|----|--|
| Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| Sample pH greater than 2 | R | RPD outside accepted recovery limits |

Sample Log-In Check List

Client Name:	Western Refining Gallup	Work Order Number:	1211303
Received by/date:	<i>mg</i> 11/07/12		
Logged By:	Ashley Gallegos	11/7/2012 1:56:00 PM	<i>AG</i>
Completed By:	Ashley Gallegos	11/7/2012 2:33:39 PM	<i>AG</i>
Reviewed By:	<i>IO</i> 11/07/2012		

Chain of Custody

- Were seals intact? Yes ☐ No ☐ Not Present ☒
- Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
- How was the sample delivered? Client

Log In

- Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA ☐
- 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 ☐
001E-004E-ADDED 1mL HNO₃ FOR ACCEPTABLE PH- 012D-ADDED 0.4mL HNO₃ FOR ACCEPTABLE PH
- VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
- Were any sample containers received broken? Yes ☐ No ☒
- Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☒ No ☐
- Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
- Is it clear what analyses were requested? Yes ☒ No ☐
- Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☒ No ☐

of preserved bottles checked for pH: 38

Adjusted? YES (<2 or >12 unless noted)

Checked by: *[Signature]*

Special Handling (if applicable)

- 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:			

- Additional remarks:

19. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			

