AP - 111

ANNUAL GW MONITORING REPORT (22 of 29)

2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-01
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 1:05:00 PM
Lab ID: 1611785-005
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Dibromomethane	ND	0.12	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
2-Hexanone	ND	0.84	10		µg/L	1	11/16/2016 5:48:15 PM	R38763
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/16/2016 5:48:15 PM	R38763
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Styrene	ND	0.11	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-01
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 1:05:00 PM
Lab ID: 1611785-005
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/16/2016 5:48:15 PM	R38763
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	11/16/2016 5:48:15 PM	R38763
Surr: 4-Bromofluorobenzene	97.4	0	70-130		%Rec	1	11/16/2016 5:48:15 PM	R38763
Surr: Dibromofluoromethane	104	0	70-130		%Rec	1	11/16/2016 5:48:15 PM	R38763
Surr: Toluene-d8	101	0	70-130		%Rec	1	11/16/2016 5:48:15 PM	R38763

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 2:20:00 PM
Lab ID: 1611785-006 **Matrix:** AQUEOUS **Received Date:** 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	11/21/2016 6:37:41 PM	28775
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/17/2016 10:19:44 PM	28698
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/17/2016 10:19:44 PM	28698
Surr: DNOP	103	0	77.1-144		%Rec	1	11/17/2016 10:19:44 PM	28698
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.040	0.025	0.050	J	mg/L	1	11/16/2016 3:20:27 PM	G38747
Surr: BFB	92.9	0	66.4-120		%Rec	1	11/16/2016 3:20:27 PM	G38747
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.20	0.050	0.10		mg/L	1	11/16/2016 4:38:55 PM	R38777
Chloride	550	2.5	25		mg/L	50	11/24/2016 2:45:13 AM	A38978
Nitrogen, Nitrite (As N)	ND	1.0	2.0		mg/L	20	11/16/2016 4:51:20 PM	R38777
Bromide	0.93	0.044	0.10		mg/L	1	11/16/2016 4:38:55 PM	R38777
Nitrogen, Nitrate (As N)	0.52	0.041	0.10		mg/L	1	11/16/2016 4:38:55 PM	R38777
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50		mg/L	1	11/16/2016 4:38:55 PM	R38777
Sulfate	190	2.8	10		mg/L	20	11/16/2016 4:51:20 PM	R38777
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.051	0.0013	0.0020		mg/L	1	12/6/2016 6:23:54 PM	B39177
Cadmium	ND	0.00075	0.0020		mg/L	1	12/6/2016 6:23:54 PM	B39177
Calcium	80	0.50	1.0		mg/L	1	12/8/2016 1:49:49 PM	A39247
Chromium	ND	0.0018	0.0060		mg/L	1	12/6/2016 6:23:54 PM	B39177
Copper	ND	0.0040	0.0060		mg/L	1	12/6/2016 6:23:54 PM	B39177
Iron	ND	0.020	0.020		mg/L	1	12/6/2016 6:23:54 PM	B39177
Magnesium	14	0.50	1.0		mg/L	1	12/8/2016 1:49:49 PM	A39247
Manganese	0.076	0.00032	0.0020	*	mg/L	1	12/6/2016 6:23:54 PM	B39177
Potassium	1.6	0.50	1.0		mg/L	1	12/6/2016 6:23:54 PM	B39177
Silver	ND	0.0028	0.0050		mg/L	1	12/6/2016 6:23:54 PM	B39177
Sodium	630	5.0	10		mg/L	10	12/8/2016 2:41:59 PM	A39247
Zinc	0.014	0.0028	0.010		mg/L	1	12/8/2016 1:49:49 PM	A39247
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.047	0.00079	0.0020		mg/L	1	12/8/2016 2:56:24 PM	28978
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 2:56:24 PM	28978
Chromium	ND	0.0027	0.0060		mg/L	1	12/8/2016 2:56:24 PM	28978
Copper	ND	0.0030	0.0060		mg/L	1	12/8/2016 2:56:24 PM	28978
Iron	ND	0.020	0.020		mg/L	1	12/8/2016 2:56:24 PM	28978
Manganese	0.047	0.00027	0.0020		mg/L	1	12/8/2016 2:56:24 PM	28978
Silver	0.0027	0.0015	0.0050	J	mg/L	1	12/8/2016 2:56:24 PM	28978

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Client Sample ID: OW-10
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 2:20:00 PM
Lab ID: 1611785-006
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Zinc	ND	0.0027	0.010		mg/L	1	12/8/2016 2:56:24 PM	28978
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0024	0.00069	0.0050	J	mg/L	5	11/30/2016 4:41:33 PM	R39071
Lead	0.00017	0.00017	0.00050	J	mg/L	1	11/28/2016 5:13:59 PM	C39007
Selenium	0.016	0.00021	0.0010		mg/L	1	11/28/2016 5:13:59 PM	C39007
Uranium	0.056	0.00026	0.0025	*	mg/L	5	11/30/2016 4:41:33 PM	R39071
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0021	0.0011	0.0050	J	mg/L	5	12/7/2016 4:05:50 PM	28978
Lead	ND	0.00041	0.0025		mg/L	5	12/7/2016 4:05:50 PM	28978
Selenium	0.016	0.00094	0.0050		mg/L	5	12/7/2016 4:05:50 PM	28978
Uranium	0.055	0.00087	0.0025	*	mg/L	5	12/7/2016 4:05:50 PM	28978
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	0.000062	0.000053	0.00020	J	mg/L	1	11/29/2016 3:53:40 PM	28890
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Toluene	ND	0.12	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Methyl tert-butyl ether (MTBE)	28	0.21	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,2-Dichloroethane (EDC)	0.52	0.12	1.0	J	µg/L	1	11/16/2016 6:16:55 PM	R38763
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Naphthalene	ND	0.093	2.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Acetone	ND	4.9	10		µg/L	1	11/16/2016 6:16:55 PM	R38763
Bromobenzene	ND	0.098	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Bromoform	ND	0.10	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Bromomethane	ND	0.78	3.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
2-Butanone	ND	0.74	10		µg/L	1	11/16/2016 6:16:55 PM	R38763
Carbon disulfide	ND	0.60	10		µg/L	1	11/16/2016 6:16:55 PM	R38763
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Chloroethane	ND	0.19	2.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Chloroform	ND	0.089	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Chloromethane	ND	0.21	3.0		µg/L	1	11/16/2016 6:16:55 PM	R38763

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 2:20:00 PM
Lab ID: 1611785-006 **Matrix:** AQUEOUS **Received Date:** 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
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4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
cis-1,2-DCE	0.28	0.12	1.0	J	µg/L	1	11/16/2016 6:16:55 PM	R38763
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
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1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,1-Dichloroethane	0.85	0.11	1.0	J	µg/L	1	11/16/2016 6:16:55 PM	R38763
1,1-Dichloroethene	0.67	0.11	1.0	J	µg/L	1	11/16/2016 6:16:55 PM	R38763
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
2-Hexanone	ND	0.84	10		µg/L	1	11/16/2016 6:16:55 PM	R38763
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/16/2016 6:16:55 PM	R38763
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
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1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/16/2016 6:16:55 PM	R38763
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	11/16/2016 6:16:55 PM	R38763
Surr: 4-Bromofluorobenzene	99.3	0	70-130		%Rec	1	11/16/2016 6:16:55 PM	R38763
Surr: Dibromofluoromethane	111	0	70-130		%Rec	1	11/16/2016 6:16:55 PM	R38763
Surr: Toluene-d8	103	0	70-130		%Rec	1	11/16/2016 6:16:55 PM	R38763

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Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP-02
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 10:35:00 AM
Lab ID: 1611785-007
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	11/21/2016 6:52:43 PM	28775
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/17/2016 10:41:36 PM	28698
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/17/2016 10:41:36 PM	28698
Surr: DNOP	107	0	77.1-144		%Rec	1	11/17/2016 10:41:36 PM	28698
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.063	0.025	0.050		mg/L	1	11/16/2016 3:44:50 PM	G38747
Surr: BFB	89.9	0	66.4-120		%Rec	1	11/16/2016 3:44:50 PM	G38747
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.020	0.0013	0.0020		mg/L	1	12/6/2016 6:25:55 PM	B39177
Cadmium	ND	0.00075	0.0020		mg/L	1	12/6/2016 6:25:55 PM	B39177
Chromium	ND	0.0018	0.0060		mg/L	1	12/6/2016 6:25:55 PM	B39177
Copper	ND	0.0040	0.0060		mg/L	1	12/6/2016 6:25:55 PM	B39177
Iron	ND	0.020	0.020		mg/L	1	12/6/2016 6:25:55 PM	B39177
Manganese	0.021	0.00032	0.0020		mg/L	1	12/6/2016 6:25:55 PM	B39177
Silver	ND	0.0028	0.0050		mg/L	1	12/6/2016 6:25:55 PM	B39177
Zinc	ND	0.0028	0.010		mg/L	1	12/9/2016 12:12:43 PM	A39280
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.020	0.00079	0.0020		mg/L	1	12/8/2016 2:58:21 PM	28978
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 2:58:21 PM	28978
Chromium	ND	0.0027	0.0060		mg/L	1	12/8/2016 2:58:21 PM	28978
Copper	ND	0.0030	0.0060		mg/L	1	12/8/2016 2:58:21 PM	28978
Iron	ND	0.020	0.020		mg/L	1	12/8/2016 2:58:21 PM	28978
Manganese	0.021	0.00027	0.0020		mg/L	1	12/8/2016 2:58:21 PM	28978
Silver	0.0018	0.0015	0.0050	J	mg/L	1	12/8/2016 2:58:21 PM	28978
Zinc	ND	0.0027	0.010		mg/L	1	12/8/2016 2:58:21 PM	28978
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0014	0.00069	0.0050	J	mg/L	5	11/30/2016 4:46:41 PM	R39071
Lead	ND	0.00017	0.00050		mg/L	1	11/28/2016 5:17:02 PM	C39007
Selenium	0.0026	0.0011	0.0050	J	mg/L	5	11/30/2016 4:46:41 PM	R39071
Uranium	0.017	0.000051	0.00050		mg/L	1	11/28/2016 5:17:02 PM	C39007
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.0011	0.0050		mg/L	5	12/7/2016 4:16:06 PM	28978
Lead	ND	0.000081	0.00050		mg/L	1	12/5/2016 3:28:39 PM	28978
Selenium	0.0025	0.00094	0.0050	J	mg/L	5	12/7/2016 4:16:06 PM	28978
Uranium	0.018	0.00017	0.00050		mg/L	1	12/5/2016 3:28:39 PM	28978

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP-02
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 10:35:00 AM
Lab ID: 1611785-007
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	0.000063	0.000053	0.00020	J	mg/L	1	11/29/2016 3:55:24 PM	28890
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Toluene	ND	0.12	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Methyl tert-butyl ether (MTBE)	44	0.21	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,2-Dichloroethane (EDC)	0.73	0.12	1.0	J	µg/L	1	11/16/2016 6:45:45 PM	R38763
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Naphthalene	ND	0.093	2.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Acetone	ND	4.9	10		µg/L	1	11/16/2016 6:45:45 PM	R38763
Bromobenzene	ND	0.098	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Bromoform	ND	0.10	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Bromomethane	ND	0.78	3.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
2-Butanone	ND	0.74	10		µg/L	1	11/16/2016 6:45:45 PM	R38763
Carbon disulfide	ND	0.60	10		µg/L	1	11/16/2016 6:45:45 PM	R38763
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Chloroethane	ND	0.19	2.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Chloroform	ND	0.089	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Chloromethane	ND	0.21	3.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Dibromomethane	ND	0.12	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP-02
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 10:35:00 AM
Lab ID: 1611785-007
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
2-Hexanone	ND	0.84	10		µg/L	1	11/16/2016 6:45:45 PM	R38763
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/16/2016 6:45:45 PM	R38763
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Styrene	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/16/2016 6:45:45 PM	R38763
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	11/16/2016 6:45:45 PM	R38763
Surr: 4-Bromofluorobenzene	97.4	0	70-130		%Rec	1	11/16/2016 6:45:45 PM	R38763
Surr: Dibromofluoromethane	111	0	70-130		%Rec	1	11/16/2016 6:45:45 PM	R38763
Surr: Toluene-d8	103	0	70-130		%Rec	1	11/16/2016 6:45:45 PM	R38763

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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 4th Quarter OW Wells
Collection Date:
Lab ID: 1611785-008
Matrix: TRIP BLANK
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Toluene	0.12	0.12	1.0	J	µg/L	1	11/16/2016 4:21:55 PM	R38763
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Naphthalene	ND	0.093	2.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Acetone	ND	4.9	10		µg/L	1	11/16/2016 4:21:55 PM	R38763
Bromobenzene	ND	0.098	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Bromoform	ND	0.10	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Bromomethane	ND	0.78	3.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
2-Butanone	ND	0.74	10		µg/L	1	11/16/2016 4:21:55 PM	R38763
Carbon disulfide	ND	0.60	10		µg/L	1	11/16/2016 4:21:55 PM	R38763
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Chloroethane	ND	0.19	2.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Chloroform	ND	0.089	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Chloromethane	ND	0.21	3.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Dibromomethane	ND	0.12	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/16/2016 4:21:55 PM	R38763

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 4th Quarter OW Wells
Collection Date:
Lab ID: 1611785-008
Matrix: TRIP BLANK
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
2-Hexanone	ND	0.84	10		µg/L	1	11/16/2016 4:21:55 PM	R38763
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/16/2016 4:21:55 PM	R38763
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Styrene	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/16/2016 4:21:55 PM	R38763
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	11/16/2016 4:21:55 PM	R38763
Surr: 4-Bromofluorobenzene	99.3	0	70-130		%Rec	1	11/16/2016 4:21:55 PM	R38763
Surr: Dibromofluoromethane	103	0	70-130		%Rec	1	11/16/2016 4:21:55 PM	R38763
Surr: Toluene-d8	102	0	70-130		%Rec	1	11/16/2016 4:21:55 PM	R38763

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Quarter OW Wells

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B39177**	RunNo: **39177**
Prep Date:	Analysis Date: **12/6/2016**	SeqNo: **1226115** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B39177**	RunNo: **39177**
Prep Date:	Analysis Date: **12/6/2016**	SeqNo: **1226116** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.8	85	115			
Cadmium	0.49	0.0020	0.5000	0	99.0	85	115			
Chromium	0.47	0.0060	0.5000	0	94.7	85	115			
Copper	0.47	0.0060	0.5000	0	94.3	85	115			
Iron	0.48	0.020	0.5000	0	96.7	85	115			
Manganese	0.47	0.0020	0.5000	0	94.6	85	115			
Potassium	57	1.0	50.00	0	114	85	115			
Silver	0.099	0.0050	0.1000	0	98.8	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B39177**	RunNo: **39177**
Prep Date:	Analysis Date: **12/6/2016**	SeqNo: **1226383** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0018	0.0020	0.002000	0	91.5	50	150			J
Cadmium	0.0021	0.0020	0.002000	0	106	50	150			
Chromium	0.0056	0.0060	0.006000	0	93.0	50	150			J
Copper	0.0040	0.0060	0.006000	0	67.0	50	150			J
Iron	0.022	0.020	0.02000	0	109	50	150			
Manganese	0.0022	0.0020	0.002000	0	108	50	150			
Potassium	0.67	1.0	0.5000	0	134	50	150			J
Silver	0.0050	0.0050	0.005000	0	101	50	150			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Quarter OW Wells

Sample ID	**MB-A**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**A39247**	RunNo:	**39247**					
Prep Date:		Analysis Date:	**12/8/2016**	SeqNo:	**1228271**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID	**LCS-A**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID:	**A39247**	RunNo:	**39247**					
Prep Date:		Analysis Date:	**12/8/2016**	SeqNo:	**1228272**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.4	85	115			
Calcium	51	1.0	50.00	0	103	85	115			
Iron	0.49	0.020	0.5000	0	97.9	85	115			
Magnesium	52	1.0	50.00	0	103	85	115			
Manganese	0.49	0.0020	0.5000	0	97.6	85	115			
Zinc	0.49	0.010	0.5000	0	99.0	85	115			

Sample ID	**LLLCS-A**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**A39247**	RunNo:	**39247**					
Prep Date:		Analysis Date:	**12/8/2016**	SeqNo:	**1228273**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	97.5	50	150			J
Calcium	0.58	1.0	0.5000	0	115	50	150			J
Iron	0.024	0.020	0.02000	0	122	50	150			
Magnesium	0.55	1.0	0.5000	0	111	50	150			J
Manganese	0.0024	0.0020	0.002000	0	123	50	150			
Zinc	0.0067	0.010	0.005000	0	134	50	150			J

Sample ID	**MB-A**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**A39280**	RunNo:	**39280**					
Prep Date:		Analysis Date:	**12/9/2016**	SeqNo:	**1229491**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Quarter OW Wells

Sample ID	**LCS-A**	SampType: **LCS**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID: **A39280**			RunNo: **39280**					
Prep Date:		Analysis Date: **12/9/2016**			SeqNo: **1229492**		Units: **mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc		0.44	0.010	0.5000	0	89.0	85	115			

Sample ID	**LLLCS-A**	SampType: **LCSLL**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID: **A39280**			RunNo: **39280**					
Prep Date:		Analysis Date: **12/9/2016**			SeqNo: **1229493**		Units: **mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc		0.0050	0.010	0.005000	0	99.8	50	150			J

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Quarter OW Wells

Sample ID	**MB-28978**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**28978**	RunNo:	**39177**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/6/2016**	SeqNo:	**1225905**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID	**LCS-28978**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID:	**28978**	RunNo:	**39177**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/6/2016**	SeqNo:	**1225906**	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	103	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Chromium	0.51	0.0060	0.5000	0	101	85	115			
Copper	0.47	0.0060	0.5000	0	94.6	85	115			
Iron	0.51	0.020	0.5000	0	103	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Silver	0.093	0.0050	0.1000	0	92.8	85	115			

Sample ID	**LLLCS-28978**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**28978**	RunNo:	**39177**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/6/2016**	SeqNo:	**1225907**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0016	0.0020	0.002000	0	79.0	50	150			J
Cadmium	0.0020	0.0020	0.002000	0	97.5	50	150			J
Chromium	0.0063	0.0060	0.006000	0	105	50	150			
Copper	0.0033	0.0060	0.006000	0	54.5	50	150			J
Iron	0.020	0.020	0.02000	0	102	50	150			
Manganese	0.0022	0.0020	0.002000	0	108	50	150			
Silver	0.0051	0.0050	0.005000	0	101	50	150			

Sample ID	**1611785-002EMS**	SampType:	**MS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**OW-14**	Batch ID:	**28978**	RunNo:	**39177**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/6/2016**	SeqNo:	**1225936**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.53	0.0020	0.5000	0	105	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Quarter OW Wells

Sample ID	**1611785-002EMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-14**	Batch ID:	**28978**		RunNo:	**39177**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/6/2016**		SeqNo:	**1225936**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.51	0.0060	0.5000	0	102	70	130			
Copper	0.50	0.0060	0.5000	0	99.9	70	130			
Silver	0.093	0.0050	0.1000	0	92.8	70	130			

Sample ID	**1611785-002EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-14**	Batch ID:	**28978**		RunNo:	**39177**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/6/2016**		SeqNo:	**1225937**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.53	0.0020	0.5000	0	106	70	130	0.740	20	
Chromium	0.51	0.0060	0.5000	0	102	70	130	0.418	20	
Copper	0.50	0.0060	0.5000	0	100	70	130	0.507	20	
Silver	0.095	0.0050	0.1000	0	94.8	70	130	2.16	20	

Sample ID	**MB-28978**	SampType:	**MBLK**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**PBW**	Batch ID:	**28978**		RunNo:	**39177**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/6/2016**		SeqNo:	**1226430**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Sample ID	**LLLCS-28978**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**BatchQC**	Batch ID:	**28978**		RunNo:	**39177**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/6/2016**		SeqNo:	**1226431**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.0054	0.010	0.005000	0	108	50	150			J

Sample ID	**LCS-28978**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**LCSW**	Batch ID:	**28978**		RunNo:	**39177**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/6/2016**		SeqNo:	**1226432**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.47	0.010	0.5000	0	94.9	85	115			

Sample ID	**1611785-002EMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-14**	Batch ID:	**28978**		RunNo:	**39247**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/8/2016**		SeqNo:	**1228494**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID	**1611785-002EMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-14**	Batch ID:	**28978**		RunNo:	**39247**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/8/2016**		SeqNo:	**1228494**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.48	0.010	0.5000	0	96.5	70	130			

Sample ID	**1611785-002EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-14**	Batch ID:	**28978**		RunNo:	**39247**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/8/2016**		SeqNo:	**1228495**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.49	0.010	0.5000	0	98.2	70	130	1.72	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Quarter OW Wells

Sample ID	**1611785-002DMSLL**	SampType:	**MS**		TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**OW-14**	Batch ID:	**C39007**		RunNo:	**39007**					
Prep Date:		Analysis Date:	**11/28/2016**		SeqNo:	**1219978**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.013	0.00050	0.01250	0	108	70	130				
Uranium	0.019	0.00050	0.01250	0.004831	116	70	130				

Sample ID	**LCS**	SampType:	**LCS**		TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID:	**C39007**		RunNo:	**39007**					
Prep Date:		Analysis Date:	**11/28/2016**		SeqNo:	**1220004**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.012	0.00050	0.01250	0	96.9	85	115				
Selenium	0.025	0.0010	0.02500	0	101	85	115				
Uranium	0.012	0.00050	0.01250	0	96.7	85	115				

Sample ID	**LLLCS**	SampType:	**LCSLL**		TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**C39007**		RunNo:	**39007**					
Prep Date:		Analysis Date:	**11/28/2016**		SeqNo:	**1220005**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.00049	0.00050	0.0005000	0	97.6	50	150			J	
Selenium	0.0011	0.0010	0.001000	0	106	50	150				
Uranium	0.00050	0.00050	0.0005000	0	100	50	150				

Sample ID	**MB**	SampType:	**MBLK**		TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**C39007**		RunNo:	**39007**					
Prep Date:		Analysis Date:	**11/28/2016**		SeqNo:	**1220009**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	ND	0.00050									
Selenium	ND	0.0010									
Uranium	ND	0.00050									

Sample ID	**1611785-002DMSLL**	SampType:	**MS**		TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**OW-14**	Batch ID:	**R39071**		RunNo:	**39071**					
Prep Date:		Analysis Date:	**11/30/2016**		SeqNo:	**1222027**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.14	0.0050	0.1250	0.009917	105	70	130				

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Quarter OW Wells

Sample ID	**LCS**	SampType: **LCS**		TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID: **R39071**		RunNo: **39071**					
Prep Date:		Analysis Date: **11/30/2016**		SeqNo: **1222065**		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	0.027	0.0010	0.02500	0	107	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID	**LCS**	SampType: **LCS**		TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID: **R39071**		RunNo: **39071**					
Prep Date:		Analysis Date: **11/30/2016**		SeqNo: **1222066**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.027	0.0010	0.02500	0	108	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID	**LLLCS**	SampType: **LCSLL**		TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID: **R39071**		RunNo: **39071**					
Prep Date:		Analysis Date: **11/30/2016**		SeqNo: **1222067**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00099	0.0010	0.001000	0	98.5	50	150			J
Selenium	0.00097	0.0010	0.001000	0	97.3	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	98.4	50	150			J

Sample ID	**LLLCS**	SampType: **LCSLL**		TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID: **R39071**		RunNo: **39071**					
Prep Date:		Analysis Date: **11/30/2016**		SeqNo: **1222068**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	101	50	150			
Selenium	0.0011	0.0010	0.001000	0	105	50	150			
Uranium	0.00048	0.00050	0.0005000	0	96.9	50	150			J

Sample ID	**MB**	SampType: **MBLK**		TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**PBW**	Batch ID: **R39071**		RunNo: **39071**					
Prep Date:		Analysis Date: **11/30/2016**		SeqNo: **1222069**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**
19-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Quarter OW Wells

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R39071**	RunNo: **39071**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222070** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Quarter OW Wells

Sample ID	**MB-28978**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**28978**	RunNo:	**39143**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**	SeqNo:	**1224658**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-28978**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**28978**	RunNo:	**39143**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**	SeqNo:	**1224660**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.7	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	97.3	85	115			
Uranium	0.012	0.00050	0.01250	0	100	85	115			

Sample ID	**MSLLLCS-28978**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**28978**	RunNo:	**39143**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**	SeqNo:	**1224662**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00091	0.0010	0.001000	0	91.0	50	150			J
Lead	0.00048	0.00050	0.0005000	0	95.9	50	150			J
Selenium	0.00095	0.0010	0.001000	0	94.8	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	97.9	50	150			J

Sample ID	**1611785-003EMSDL**	SampType:	**MSDLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**OW-13**	Batch ID:	**28978**	RunNo:	**39143**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**	SeqNo:	**1225638**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0.001600	101	70	130	0.376	20	
Lead	0.013	0.00050	0.01250	0	105	70	130	0.170	20	

Sample ID	**1611785-003EMSLL**	SampType:	**MSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**OW-13**	Batch ID:	**28978**	RunNo:	**39143**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**	SeqNo:	**1225639**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0.001600	100	70	130			
Lead	0.013	0.00050	0.01250	0	105	70	130			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**
19-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Quarter OW Wells

Sample ID	**1611785-003EMSDL**	SampType:	**MSDLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**OW-13**	Batch ID:	**28978**		RunNo:	**39218**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/7/2016**		SeqNo:	**1227778**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.028	0.0050	0.02500	0.003275	99.6	70	130	4.06	20	
Uranium	0.030	0.0025	0.01250	0.01676	103	70	130	2.70	20	

Sample ID	**1611785-003EMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**OW-13**	Batch ID:	**28978**		RunNo:	**39218**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/7/2016**		SeqNo:	**1227779**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.029	0.0050	0.02500	0.003275	104	70	130			
Uranium	0.030	0.0025	0.01250	0.01676	110	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Quarter OW Wells

Sample ID	**MB-28890**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**28890**	RunNo:	**39024**					
Prep Date:	**11/29/2016**	Analysis Date:	**11/29/2016**	SeqNo:	**1220570**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000067	0.00020								J

Sample ID	**LCS-28890**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**28890**	RunNo:	**39024**					
Prep Date:	**11/29/2016**	Analysis Date:	**11/29/2016**	SeqNo:	**1220571**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.5	80	120			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**
19-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Quarter OW Wells

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38777**	RunNo: **38777**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211577** 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: **R38777**	RunNo: **38777**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211578** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	106	90	110			
Chloride	4.8	0.50	5.000	0	95.6	90	110			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	95.5	90	110			
Bromide	2.5	0.10	2.500	0	98.4	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	102	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.8	90	110			
Sulfate	9.9	0.50	10.00	0	98.6	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A38978**	RunNo: **38978**
Prep Date:	Analysis Date: **11/24/2016**	SeqNo: **1218903** 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: **A38978**	RunNo: **38978**
Prep Date:	Analysis Date: **11/24/2016**	SeqNo: **1218904** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.8	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID	**MB-28775**	SampType:	**MBLK**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**PBW**	Batch ID:	**28775**	RunNo:	**38889**					
Prep Date:	**11/21/2016**	Analysis Date:	**11/21/2016**	SeqNo:	**1215711**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	**LCS-28775**	SampType:	**LCS**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**LCSW**	Batch ID:	**28775**	RunNo:	**38889**					
Prep Date:	**11/21/2016**	Analysis Date:	**11/21/2016**	SeqNo:	**1215713**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.11	0.010	0.1000	0	105	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Quarter OW Wells

Sample ID	**MB-28698**	SampType:	**MBLK**	TestCode:	**EPA Method 8015M/D: Diesel Range**					
Client ID:	**PBW**	Batch ID:	**28698**	RunNo:	**38769**					
Prep Date:	**11/16/2016**	Analysis Date:	**11/17/2016**	SeqNo:	**1212026**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		104	77.1	144			

Sample ID	**LCS-28698**	SampType:	**LCS**	TestCode:	**EPA Method 8015M/D: Diesel Range**					
Client ID:	**LCSW**	Batch ID:	**28698**	RunNo:	**38769**					
Prep Date:	**11/16/2016**	Analysis Date:	**11/17/2016**	SeqNo:	**1212027**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	115	63.2	155			
Surr: DNOP	0.52		0.5000		104	77.1	144			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Quarter OW Wells

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G38747**	RunNo: **38747**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1210964** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		93.4	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G38747**	RunNo: **38747**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1210965** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	91.4	80	120			
Surr: BFB	19		20.00		97.0	66.4	120			

Sample ID **1611785-002AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **OW-14**	Batch ID: **G38747**	RunNo: **38747**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1210967** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	50	2.5	25.00	29.00	85.6	64.8	129			
Surr: BFB	1100		1000		105	66.4	120			

Sample ID **1611785-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **OW-14**	Batch ID: **G38747**	RunNo: **38747**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1210968** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	50	2.5	25.00	29.00	85.0	64.8	129	0.278	20	
Surr: BFB	1000		1000		105	66.4	120	0	0	

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Quarter OW Wells

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R38763**	RunNo: **38763**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211136** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.7	70	130			
Toluene	19	1.0	20.00	0	96.2	70	130			
Chlorobenzene	18	1.0	20.00	0	92.3	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	104	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	91.6	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		98.9	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.3	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	10		10.00		99.7	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38763**	RunNo: **38763**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211137** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**
19-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Quarter OW Wells

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38763**	RunNo: **38763**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211137** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38763**	RunNo: **38763**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211137** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.1	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.0	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	9.9		10.00		99.2	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1611785** RcptNo: **1**

Received by/date: [signature] 11/15/16

Logged By: **Ashley Gallegos** **11/15/2016 5:15:00 PM** [signature]

Completed By: **Ashley Gallegos** **11/16/2016 8:00:51 AM** [signature]

Reviewed By: aj 11/16/16

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: 14 (<2 or >12 unless noted)

Adjusted? Yes

Checked by: Re

Special Handling (if applicable)

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

Person Notified: Date

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

Regarding:

Client Instructions:

17. Additional remarks: For metals analysis, 1 mL HNO_3 was added to 002E for acceptable pH. 11/16/16 0933 Re

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.4	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address: 92 Giant Crossing Road, Gallup, NM 87301

Phone #: 505-722-3833

Email or Fax#: 505-863-0930

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other_____
☐ EDD (Type) _____

Turn-Around Time:
X Standard ☐ Rush_____

Project Name:
2016 4th Quarter OW Wells

Project #:

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

Sampler: Cjohnson WNR
On Ice: ☐ Yes ☐ No
Sample Temperature: 3.2

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611785	Analysis Request: 8260+MTBE	WQCC Metals - Total	WQCC Metals - Dissolved - Filtered	8015D (GRO/DRO/MRO)	8011 FOR EDB	MAJOR CATIONS/ANIONS	Air Bubbles (Y or N)
11/15/2016	700	aqueous	FIELD BLANK	3-40ML VOAS	HCL	-001	X						
11/15/2016	920	aqueous	OW-14	Misc	Misc	-002	X	X	X	X	X		
11/15/2016	1035	aqueous	OW-13	Misc	Misc	-003	X	X	X	X	X		
11/15/2016	1140	aqueous	OW-29	Misc	Misc	-004	X	X	X	X	X		
11/15/2016	1305	aqueous	OW-01	Misc	Misc	-005	X	X	X	X		X	
11/15/2016	1420	aqueous	OW-10	Misc	Misc	-006	X	X	X	X		X	
11/15/2016	1035	aqueous	DUP-02	Misc	Misc	-007	X	X	X	X	X		
10/27/2015		aqueous	TRIP BLANK	3-40ML VOAS	HCL	-008	X						

Date	Time	Relinquished by:	Received by:	Date	Time
11-15-16	1520			11/15/16	15:21
11/15/16	1715			11/15/16	1715

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

March 30, 2016

Cheryl Johnson

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

RE: Pond Sampling OrderNo.: 1603422

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 3/8/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

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

Case Narrative

WO#: **1603422**
Date: **3/30/2016**

CLIENT: Western Refining Southwest, Gallup
Project: Pond Sampling

Analytical Notes Regarding BOD:
Sample "Pond 2" is reported with a > result due to the bottles having a DO depletion below 1.0mg/L.

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12B
Project: Pond Sampling
Collection Date: 3/8/2016 10:15:00 AM
Lab ID: 1603422-001
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	240	2.0	2.0		mg/L	1	3/14/2016 8:23:00 AM	24146
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
Total Coliform	>2419.6	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138
E. Coli	770.1	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12A
Project: Pond Sampling
Collection Date: 3/8/2016 10:25:00 AM
Lab ID: 1603422-002
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	130	2.0	2.0		mg/L	1	3/14/2016 8:23:00 AM	24146
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
Total Coliform	980.4	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138
E. Coli	21.6	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 11
Project: Pond Sampling
Collection Date: 3/8/2016 10:31:00 AM
Lab ID: 1603422-003
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	18	2.0	2.0		mg/L	1	3/14/2016 8:23:00 AM	24146
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
Total Coliform	<1	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138
E. Coli	<1	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7
Project: Pond Sampling
Collection Date: 3/8/2016 10:37:00 AM
Lab ID: 1603422-004
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	41	2.0	2.0		mg/L	1	3/14/2016 8:23:00 AM	24146
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
Total Coliform	3.1	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138
E. Coli	<1	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 5
Project: Pond Sampling
Collection Date: 3/8/2016 10:45:00 AM
Lab ID: 1603422-005
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	63	2.0	2.0		mg/L	1	3/14/2016 8:23:00 AM	24146
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
Total Coliform	613.1	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138
E. Coli	1.0	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 4
Project: Pond Sampling
Collection Date: 3/8/2016 10:51:00 AM
Lab ID: 1603422-006
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	190	2.0	2.0		mg/L	1	3/14/2016 8:23:00 AM	24146
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
Total Coliform	2419.6	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138
E. Coli	36.3	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 3
Project: Pond Sampling
Collection Date: 3/8/2016 10:58:00 AM
Lab ID: 1603422-007
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	240	2.0	2.0		mg/L	1	3/14/2016 8:23:00 AM	24146
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
Total Coliform	>2419.6	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138
E. Coli	1732.9	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 2
Project: Pond Sampling
Collection Date: 3/8/2016 11:04:00 AM
Lab ID: 1603422-008
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	>413.04	2.0	2.0		mg/L	1	3/14/2016 8:23:00 AM	24146
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
Total Coliform	>2419.6	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138
E. Coli	>2419.6	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	806		10.0	1	03/14/2016 12:21	WG855950

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	867		10.0	1	03/14/2016 12:22	WG855950

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	210		200	20	03/14/2016 12:27	WG855951

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	820		10.0	1	03/14/2016 12:27	WG855951

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	537		50.0	5	03/15/2016 10:51	WG856203

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	569		50.0	5	03/15/2016 10:51	WG856203

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	627		50.0	5	03/15/2016 10:51	WG856203

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	977		10.0	1	03/14/2016 12:29	WG855951

Method Blank (MB)

(MB) 03/14/16 12:19

	MB Result	MB Qualifier	MB RDL
Analyte	mg/l		mg/l
COD	ND		10.0

L822580-01 Original Sample (OS) • Duplicate (DUP)

(OS) 03/14/16 12:20 • (DUP) 03/14/16 12:20

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
COD	45.4	46.9	1	3.00		20

L822581-01 Original Sample (OS) • Duplicate (DUP)

(OS) 03/14/16 12:21 • (DUP) 03/14/16 12:21

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
COD	14.8	14.8	1	0.000		20

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

(LCS) 03/14/16 12:19 • (LCSD) 03/14/16 12:19

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
COD	242	239	239	99.0	99.0	90.0-110			0.000	20

L822581-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 03/14/16 12:21 • (MS) 03/14/16 12:21 • (MSD) 03/14/16 12:21

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
COD	400	91.7	478	478	97.0	97.0	1	80.0-120			0.000	20

Method Blank (MB)

(MB) 03/14/16 12:27

	MB Result	MB Qualifier	MB RDL
Analyte	mg/l		mg/l
COD	ND		10.0

L822685-01 Original Sample (OS) • Duplicate (DUP)

(OS) 03/14/16 12:29 • (DUP) 03/14/16 12:29

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
COD	55.8	55.4	1	1.00		20

L822761-01 Original Sample (OS) • Duplicate (DUP)

(OS) 03/14/16 12:30 • (DUP) 03/14/16 12:30

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

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

(LCS) 03/14/16 12:27 • (LCSD) 03/14/16 12:27

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
COD	242	231	231	96.0	96.0	90.0-110			0.000	20

L822772-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 03/14/16 12:30 • (MS) 03/14/16 12:30 • (MSD) 03/14/16 12:31

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
COD	400	850	1180	1180	82.0	82.0	1	80.0-120			0.000	20

Method Blank (MB)

(MB) 03/15/16 10:49

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
COD	ND		10.0

L822907-01 Original Sample (OS) • Duplicate (DUP)

(OS) 03/15/16 10:52 • (DUP) 03/15/16 10:52

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
COD	136	134	1	2.00		20

L822933-01 Original Sample (OS) • Duplicate (DUP)

(OS) 03/15/16 10:54 • (DUP) 03/15/16 10:54

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
COD	35.4	35.2	1	0.000		20

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

(LCS) 03/15/16 10:50 • (LCSD) 03/15/16 10:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
COD	242	243	242	100	100	90.0-110			0.000	20

L822943-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 03/15/16 10:54 • (MS) 03/15/16 10:54 • (MSD) 03/15/16 10:54

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
COD	400	6.80	424	425	104	104	1	80.0-120			0.000	20

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603422**

30-Mar-16

Client: Western Refining Southwest, Gallup
Project: Pond Sampling

Sample ID **MB-24146**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **24146**	RunNo: **32819**							
Prep Date: **3/9/2016**	Analysis Date: **3/14/2016**	SeqNo: **1005698**	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--24146**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **24146**	RunNo: **32819**							
Prep Date: **3/9/2016**	Analysis Date: **3/14/2016**	SeqNo: **1005699**	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-24146**	SampType: **LCS**	TestCode: **SM5210B: BOD**							
Client ID: **LCSW**	Batch ID: **24146**	RunNo: **32819**							
Prep Date: **3/9/2016**	Analysis Date: **3/14/2016**	SeqNo: **1005700**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	150	2.0	198.0	0	76.6	61	138			

Sample ID **LCSD-24146**	SampType: **LCSD**	TestCode: **SM5210B: BOD**							
Client ID: **LCSS02**	Batch ID: **24146**	RunNo: **32819**							
Prep Date: **3/9/2016**	Analysis Date: **3/14/2016**	SeqNo: **1005701**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	160	2.0	198.0	0	82.7	61	138	7.61	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603422**

30-Mar-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **MB-24138**	SampType: **MBLK**		TestCode: **SM 9223B Fecal Indicator: E. coli MPN**		
Client ID: **PBW**	Batch ID: **24138**		RunNo: **32733**		
Prep Date: **3/8/2016**	Analysis Date: **3/9/2016**		SeqNo: **1001973**	Units: **CFU/100ml**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Coliform	<1	1.000								
E. Coli	<1	1.000								

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1603422 RcptNo: 1

Received by/date: AG 03/08/16

Logged By: Ashley Gallegos 3/8/2016 3:23:00 PM

Completed By: Ashley Gallegos 3/8/2016 4:59:43 PM

Reviewed By: 03/08/16

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: 8 (<2 or >12 unless noted)

Adjusted? NO

Checked by: AG

Special Handling (if applicable)

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

Person Notified: _____ Date _____

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

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

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

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #:
email or Fax#:
QA/QC Package:
☐ Standard ☒ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: POND SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1603422	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	BOD	COD	E-COLI		Air Bubbles (Y or N)
3/8/16	1015	WATER	POND 12B	1 LITER PLASTIC-1	NEAT	-001												✓				
				500 ML PLASTIC-1	H_2SO_4														✓			
				100 ML PLASTIC-1	NEAT															✓		
	1025		POND 12A	1 LITER PLASTIC-1	NEAT	-002												✓				
				500 ML PLASTIC-1	H_2SO_4														✓			
				100 ML PLASTIC-1	NEAT															✓		
	1031		POND 11	1 LITER PLASTIC-1	NEAT	-003												✓				
				500 ML PLASTIC-1	H_2SO_4														✓			
				100 ML PLASTIC-1	NEAT															✓		
	1037		POND 7	1 LITER PLASTIC-1	NEAT	-004												✓				
				500 ML PLASTIC-1	H_2SO_4														✓			
				100 ML PLASTIC-1	NEAT															✓		

Analysis Request

Date	Time	Relinquished by:	Received by:	Date	Time
3/8/16	1210			3/8/16	1229
3/8/16	1523			03/08/16	1523

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package:
☐ Standard ☒ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: POND SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1603422	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	BOD	COD	E-COLI		Air Bubbles (Y or N)
3/8/16	1045	WATER	POND 5	1 LITER PLASTIC-1	NEAT	-005												✓				
				500 ML PLASTIC-1	H_2SO_4														✓			
				100 ML PLASTIC-1	NEAT															✓		
	1051		POND 4	1 LITER PLASTIC-1	NEAT	-006												✓				
				500 ML PLASTIC-1	H_2SO_4														✓			
				100 ML PLASTIC-1	NEAT															✓		
	1058		POND 3	1 LITER PLASTIC-1	NEAT	-007												✓				
				500 ML PLASTIC-1	H_2SO_4														✓			
				100 ML PLASTIC-1	NEAT															✓		
	1104		POND 2	1 LITER PLASTIC-1	NEAT	-008												✓				
				500 ML PLASTIC-1	H_2SO_4														✓			
				100 ML PLASTIC-1	NEAT															✓		

Date: 3/8/16 Time: 1210 Relinquished by:
Received by: Date: 3/8/16 Time: 1229
Date: 3/8/16 Time: 1523 Relinquished by:
Received by: A M Gallegos 03/08/16 1523

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 04, 2016

Cheryl Johnson

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

RE: Pond Sampling OrderNo.: 1603141

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 3/2/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Case Narrative

WO#: **1603141**
Date: **4/4/2016**

CLIENT: Western Refining Southwest, Gallup
Project: Pond Sampling

Analytical Notes Regarding BOD:
The Pond 9 BOD result is reported with a < value due to all 5 bottles having a depletion of <2.0 mg/L of DO.

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 9
Project: Pond Sampling
Collection Date: 3/2/2016 11:00:00 AM
Lab ID: 1603141-001
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	21	2.3	10	*	mg/L	100	3/4/2016 5:56:03 AM	R32563
Chloride	98000	270	5000		mg/L	1E+0	3/15/2016 8:58:16 PM	R32822
Bromide	190	6.5	20		mg/L	200	3/14/2016 6:23:17 PM	R32788
Phosphorus, Orthophosphate (As P)	ND	22	50		mg/L	100	3/4/2016 5:56:03 AM	R32563
Sulfate	10000	64	500		mg/L	1000	3/14/2016 6:35:42 PM	R32788
Nitrate+Nitrite as N	ND	42	100		mg/L	500	3/17/2016 8:38:37 AM	A32854
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.22	0.0066	0.010		mg/L	5	3/16/2016 3:09:25 PM	D32831
Cadmium	ND	0.0037	0.010		mg/L	5	3/16/2016 3:09:25 PM	D32831
Calcium	1300	13	50		mg/L	50	3/16/2016 3:13:01 PM	D32831
Chromium	ND	0.0088	0.030		mg/L	5	3/16/2016 3:09:25 PM	D32831
Copper	ND	0.020	0.030		mg/L	5	3/23/2016 12:35:39 PM	A33001
Iron	0.048	0.045	0.10	J	mg/L	5	3/16/2016 3:09:25 PM	D32831
Magnesium	1400	0.65	50		mg/L	50	3/16/2016 3:13:01 PM	D32831
Manganese	0.068	0.0016	0.010	*	mg/L	5	3/16/2016 3:09:25 PM	D32831
Potassium	1700	8.9	50		mg/L	50	3/16/2016 3:13:01 PM	D32831
Silver	ND	0.014	0.025		mg/L	5	3/16/2016 3:09:25 PM	D32831
Sodium	44000	48	500		mg/L	500	3/16/2016 3:15:04 PM	D32831
Zinc	0.030	0.014	0.050	J	mg/L	5	3/16/2016 3:09:25 PM	D32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.24	0.0053	0.010		mg/L	5	3/15/2016 11:45:04 AM	24075
Cadmium	ND	0.0031	0.010		mg/L	5	3/15/2016 11:45:04 AM	24075
Chromium	0.012	0.011	0.030	J	mg/L	5	3/15/2016 11:45:04 AM	24075
Copper	ND	0.026	0.030		mg/L	5	3/15/2016 11:45:04 AM	24075
Iron	0.26	0.036	0.10		mg/L	5	3/15/2016 11:45:04 AM	24075
Manganese	0.27	0.0076	0.010	*	mg/L	5	3/15/2016 11:45:04 AM	24075
Silver	ND	0.011	0.025		mg/L	5	3/15/2016 11:45:04 AM	24075
Zinc	0.023	0.019	0.050	J	mg/L	5	3/15/2016 11:45:04 AM	24075
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.12	0.0032	0.050	*	mg/L	50	3/28/2016 6:37:52 PM	B33120
Lead	ND	0.0026	0.050		mg/L	100	3/28/2016 6:40:56 PM	B33120
Selenium	0.094	0.019	0.10	J*	mg/L	100	3/28/2016 6:40:56 PM	B33120
Uranium	0.0063	0.00048	0.050	J	mg/L	100	3/28/2016 6:40:56 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.11	0.015	0.050	*	mg/L	50	3/14/2016 6:45:07 PM	24075
Lead	ND	0.0024	0.025		mg/L	50	3/14/2016 6:45:07 PM	24075
Selenium	0.079	0.012	0.10	J*	mg/L	100	3/14/2016 6:48:08 PM	24075

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 9
Project: Pond Sampling
Collection Date: 3/2/2016 11:00:00 AM
Lab ID: 1603141-001
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0061	0.00025	0.025	J	mg/L	50	3/14/2016 6:45:07 PM	24075
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/4/2016 7:51:15 AM	24081
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	<2.99	2.0	2.0		mg/L	1	3/8/2016 12:16:00 PM	24066
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
E. Coli	<1	1.000	1.000		CFU/100	1	3/3/2016 5:10:00 PM	24052
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Aniline	ND	9.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/13/2016 5:51:19 PM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 5:51:19 PM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Carbazole	ND	7.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 5:51:19 PM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 5:51:19 PM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 5:51:19 PM	24121

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 9
Project: Pond Sampling
Collection Date: 3/2/2016 11:00:00 AM
Lab ID: 1603141-001
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 5:51:19 PM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 5:51:19 PM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 5:51:19 PM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/13/2016 5:51:19 PM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 5:51:19 PM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 5:51:19 PM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Fluorene	ND	7.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2-Methylphenol	ND	8.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 5:51:19 PM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 5:51:19 PM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 5:51:19 PM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Phenol	ND	5.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 5:51:19 PM	24121

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 9
Project: Pond Sampling
Collection Date: 3/2/2016 11:00:00 AM
Lab ID: 1603141-001
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Surr: 2-Fluorophenol	66.3	0	4.63-113		%Rec	1	3/13/2016 5:51:19 PM	24121
Surr: Phenol-d5	80.7	0	4.13-124		%Rec	1	3/13/2016 5:51:19 PM	24121
Surr: 2,4,6-Tribromophenol	76.7	0	5.14-132		%Rec	1	3/13/2016 5:51:19 PM	24121
Surr: Nitrobenzene-d5	99.8	0	9.13-140		%Rec	1	3/13/2016 5:51:19 PM	24121
Surr: 2-Fluorobiphenyl	88.8	0	10.8-132		%Rec	1	3/13/2016 5:51:19 PM	24121
Surr: 4-Terphenyl-d14	42.0	0	12.9-107		%Rec	1	3/13/2016 5:51:19 PM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.096	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Toluene	ND	0.089	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,2,4-Trimethylbenzene	0.55	0.10	1.0	J	µg/L	1	3/7/2016 4:53:23 PM	R32614
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Naphthalene	ND	0.083	2.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
2-Methylnaphthalene	0.29	0.16	4.0	J	µg/L	1	3/7/2016 4:53:23 PM	R32614
Acetone	16	0.88	10		µg/L	1	3/7/2016 4:53:23 PM	R32614
Bromobenzene	ND	0.080	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Bromoform	ND	0.10	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Bromomethane	ND	0.78	3.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
2-Butanone	1.5	0.32	10	J	µg/L	1	3/7/2016 4:53:23 PM	R32614
Carbon disulfide	ND	0.60	10		µg/L	1	3/7/2016 4:53:23 PM	R32614
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Chloroethane	ND	0.15	2.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Chloroform	ND	0.089	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Chloromethane	ND	0.21	3.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614

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

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 9
Project: Pond Sampling
Collection Date: 3/2/2016 11:00:00 AM
Lab ID: 1603141-001
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Dibromomethane	ND	0.12	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
2-Hexanone	ND	0.36	10		µg/L	1	3/7/2016 4:53:23 PM	R32614
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/7/2016 4:53:23 PM	R32614
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Styrene	ND	0.095	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/7/2016 4:53:23 PM	R32614
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	3/7/2016 4:53:23 PM	R32614
Surr: 4-Bromofluorobenzene	99.9	0	70-130		%Rec	1	3/7/2016 4:53:23 PM	R32614
Surr: Dibromofluoromethane	115	0	70-130		%Rec	1	3/7/2016 4:53:23 PM	R32614

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 9
Project: Pond Sampling
Collection Date: 3/2/2016 11:00:00 AM
Lab ID: 1603141-001
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: Toluene-d8	107	0	70-130		%Rec	1	3/7/2016 4:53:23 PM	R32614
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	240000	0.50	0.50		µmhos/c	50	3/8/2016 7:12:43 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.57	0.100	1.68	H	pH units	1	3/7/2016 7:10:31 PM	R32629

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 6
Project: Pond Sampling
Collection Date: 3/2/2016 12:00:00 PM
Lab ID: 1603141-002
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	22	0.23	1.0	*	mg/L	10	3/4/2016 6:08:27 AM	R32563
Chloride	8700	27	500		mg/L	1000	3/15/2016 9:10:41 PM	R32822
Nitrogen, Nitrite (As N)	ND	4.2	10		mg/L	100	3/4/2016 6:20:51 AM	R32563
Bromide	20	0.32	1.0		mg/L	10	3/4/2016 6:08:27 AM	R32563
Nitrogen, Nitrate (As N)	ND	0.42	1.0		mg/L	10	3/4/2016 6:08:27 AM	R32563
Phosphorus, Orthophosphate (As P)	ND	2.2	5.0		mg/L	10	3/4/2016 6:08:27 AM	R32563
Sulfate	2000	6.4	50		mg/L	100	3/4/2016 6:20:51 AM	R32563
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.16	0.0013	0.0020		mg/L	1	3/11/2016 5:19:31 PM	C32754
Cadmium	ND	0.00075	0.0020		mg/L	1	3/11/2016 5:19:31 PM	C32754
Calcium	390	1.3	5.0		mg/L	5	3/16/2016 3:18:45 PM	D32831
Chromium	0.0099	0.0018	0.0060		mg/L	1	3/11/2016 5:19:31 PM	C32754
Copper	ND	0.0040	0.0060		mg/L	1	3/18/2016 12:59:51 PM	B32891
Iron	0.57	0.0091	0.020	*	mg/L	1	3/16/2016 3:16:55 PM	D32831
Magnesium	180	0.065	5.0		mg/L	5	3/16/2016 3:18:45 PM	D32831
Manganese	0.46	0.00032	0.0020	*	mg/L	1	3/11/2016 5:19:31 PM	C32754
Potassium	190	0.89	5.0		mg/L	5	3/16/2016 3:18:45 PM	D32831
Silver	ND	0.0028	0.0050		mg/L	1	3/11/2016 5:19:31 PM	C32754
Sodium	5200	9.6	100		mg/L	100	3/18/2016 1:01:42 PM	B32891
Zinc	0.015	0.0028	0.010		mg/L	1	3/16/2016 3:16:55 PM	D32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.18	0.0011	0.0020		mg/L	1	3/15/2016 11:46:52 AM	24075
Cadmium	ND	0.00062	0.0020		mg/L	1	3/15/2016 11:46:52 AM	24075
Chromium	0.011	0.0022	0.0060		mg/L	1	3/15/2016 11:46:52 AM	24075
Copper	ND	0.0051	0.0060		mg/L	1	3/15/2016 11:46:52 AM	24075
Iron	1.1	0.036	0.10	*	mg/L	5	3/15/2016 11:48:46 AM	24075
Manganese	0.47	0.0015	0.0020	*	mg/L	1	3/15/2016 11:46:52 AM	24075
Silver	ND	0.0021	0.0050		mg/L	1	3/15/2016 11:46:52 AM	24075
Zinc	0.014	0.0039	0.010		mg/L	1	3/15/2016 11:46:52 AM	24075
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.020	0.00065	0.010	*	mg/L	10	3/25/2016 5:21:54 PM	B33098
Lead	0.00059	0.00026	0.0050	J	mg/L	10	3/28/2016 6:43:59 PM	B33120
Selenium	0.019	0.0097	0.050	J	mg/L	50	3/28/2016 6:47:02 PM	B33120
Uranium	0.0037	0.000048	0.0050	J	mg/L	10	3/28/2016 6:43:59 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.021	0.0029	0.010	*	mg/L	10	3/14/2016 6:20:58 PM	24075
Lead	0.0012	0.00047	0.0050	J	mg/L	10	3/14/2016 6:20:58 PM	24075

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Hall Environmental Analysis Laboratory, Inc.

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Project: Pond Sampling
Collection Date: 3/2/2016 12:00:00 PM
Lab ID: 1603141-002
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Selenium	0.017	0.0025	0.020	J	mg/L	20	3/14/2016 6:23:58 PM	24075
Uranium	0.0039	0.000049	0.0050	J	mg/L	10	3/14/2016 6:20:58 PM	24075
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/4/2016 7:53:20 AM	24081
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	77	2.0	2.0		mg/L	1	3/8/2016 12:16:00 PM	24066
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
E. Coli	10	10.00	10.00		CFU/100	1	3/3/2016 5:10:00 PM	24052
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Aniline	ND	9.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/13/2016 7:20:40 PM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 7:20:40 PM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Carbazole	ND	7.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 7:20:40 PM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 7:20:40 PM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121

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Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 7:20:40 PM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 7:20:40 PM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 7:20:40 PM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 7:20:40 PM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/13/2016 7:20:40 PM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 7:20:40 PM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 7:20:40 PM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Fluorene	ND	7.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2-Methylphenol	ND	8.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
3+4-Methylphenol	25	7.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 7:20:40 PM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 7:20:40 PM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 7:20:40 PM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Phenol	14	5.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 7:20:40 PM	24121

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Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 7:20:40 PM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Surr: 2-Fluorophenol	45.5	0	4.63-113		%Rec	1	3/13/2016 7:20:40 PM	24121
Surr: Phenol-d5	44.6	0	4.13-124		%Rec	1	3/13/2016 7:20:40 PM	24121
Surr: 2,4,6-Tribromophenol	72.8	0	5.14-132		%Rec	1	3/13/2016 7:20:40 PM	24121
Surr: Nitrobenzene-d5	63.3	0	9.13-140		%Rec	1	3/13/2016 7:20:40 PM	24121
Surr: 2-Fluorobiphenyl	56.0	0	10.8-132		%Rec	1	3/13/2016 7:20:40 PM	24121
Surr: 4-Terphenyl-d14	45.7	0	12.9-107		%Rec	1	3/13/2016 7:20:40 PM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.48	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Toluene	ND	0.45	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Naphthalene	ND	0.42	10		µg/L	5	3/7/2016 5:22:20 PM	R32614
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/7/2016 5:22:20 PM	R32614
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/7/2016 5:22:20 PM	R32614
Acetone	15	4.4	50	J	µg/L	5	3/7/2016 5:22:20 PM	R32614
Bromobenzene	ND	0.40	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Bromoform	ND	0.51	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Bromomethane	ND	3.9	15		µg/L	5	3/7/2016 5:22:20 PM	R32614
2-Butanone	ND	1.6	50		µg/L	5	3/7/2016 5:22:20 PM	R32614
Carbon disulfide	3.5	3.0	50	J	µg/L	5	3/7/2016 5:22:20 PM	R32614
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Chloroethane	ND	0.73	10		µg/L	5	3/7/2016 5:22:20 PM	R32614
Chloroform	ND	0.44	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Chloromethane	ND	1.1	15		µg/L	5	3/7/2016 5:22:20 PM	R32614
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/7/2016 5:22:20 PM	R32614

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Dibromomethane	ND	0.60	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
2-Hexanone	ND	1.8	50		µg/L	5	3/7/2016 5:22:20 PM	R32614
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/7/2016 5:22:20 PM	R32614
Methylene Chloride	1.1	0.31	15	J	µg/L	5	3/7/2016 5:22:20 PM	R32614
n-Butylbenzene	ND	0.80	15		µg/L	5	3/7/2016 5:22:20 PM	R32614
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Styrene	ND	0.48	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/7/2016 5:22:20 PM	R32614
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/7/2016 5:22:20 PM	R32614
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/7/2016 5:22:20 PM	R32614
Surr: 1,2-Dichloroethane-d4	97.3	0	70-130		%Rec	5	3/7/2016 5:22:20 PM	R32614
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	5	3/7/2016 5:22:20 PM	R32614

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 6
Project: Pond Sampling
Collection Date: 3/2/2016 12:00:00 PM
Lab ID: 1603141-002
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: Dibromofluoromethane	101	0	70-130		%Rec	5	3/7/2016 5:22:20 PM	R32614
Surr: Toluene-d8	102	0	70-130		%Rec	5	3/7/2016 5:22:20 PM	R32614
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	32000	0.10	0.10		µmhos/c	10	3/8/2016 7:17:12 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.79	0.100	1.68	H	pH units	1	3/7/2016 7:15:02 PM	R32629

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Pond Sampling
Collection Date:
Lab ID: 1603141-003
Matrix: TRIP BLANK
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.096	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Toluene	ND	0.089	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Naphthalene	ND	0.083	2.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Acetone	ND	0.88	10		µg/L	1	3/7/2016 7:46:32 PM	R32614
Bromobenzene	ND	0.080	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Bromoform	ND	0.10	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Bromomethane	ND	0.78	3.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
2-Butanone	ND	0.32	10		µg/L	1	3/7/2016 7:46:32 PM	R32614
Carbon disulfide	ND	0.60	10		µg/L	1	3/7/2016 7:46:32 PM	R32614
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Chloroethane	ND	0.15	2.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Chloroform	ND	0.089	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Chloromethane	ND	0.21	3.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Dibromomethane	ND	0.12	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/7/2016 7:46:32 PM	R32614

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Pond Sampling
Collection Date:
Lab ID: 1603141-003
Matrix: TRIP BLANK
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
2-Hexanone	ND	0.36	10		µg/L	1	3/7/2016 7:46:32 PM	R32614
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/7/2016 7:46:32 PM	R32614
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Styrene	ND	0.095	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/7/2016 7:46:32 PM	R32614
Surr: 1,2-Dichloroethane-d4	93.4	0	70-130		%Rec	1	3/7/2016 7:46:32 PM	R32614
Surr: 4-Bromofluorobenzene	98.2	0	70-130		%Rec	1	3/7/2016 7:46:32 PM	R32614
Surr: Dibromofluoromethane	109	0	70-130		%Rec	1	3/7/2016 7:46:32 PM	R32614
Surr: Toluene-d8	104	0	70-130		%Rec	1	3/7/2016 7:46:32 PM	R32614

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

Qualifiers:

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

Wet Chemistry by Method 410.4

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
COD	2720		1000	100	03/08/2016 12:04	WG854458

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	574		100	10	03/08/2016 12:04	WG854458

Method Blank (MB)

(MB) 03/08/16 12:02

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
COD	ND		10.0

L821638-02 Original Sample (OS) • Duplicate (DUP)

(OS) 03/08/16 12:04 • (DUP) 03/08/16 12:04

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
COD	26.6	26.5	1	0.000		20

L821653-01 Original Sample (OS) • Duplicate (DUP)

(OS) 03/08/16 12:04 • (DUP) 03/08/16 12:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
COD	226	226	1	0.000		20

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

(LCS) 03/08/16 12:02 • (LCSD) 03/08/16 12:03

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
COD	242	240	239	99.0	99.0	90.0-110			1.00	20

L821811-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 03/08/16 12:05 • (MS) 03/08/16 12:05 • (MSD) 03/08/16 12:05

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
COD	400	35.2	443	446	102	103	1	80.0-120			1.00	20

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup
Project: Pond Sampling

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C32754**	RunNo: **32754**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1002498** 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								
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C32754**	RunNo: **32754**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1002499** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.2	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	99.2	85	115			
Manganese	0.49	0.0020	0.5000	0	97.7	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C32754**	RunNo: **32754**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1002500** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0018	0.0020	0.002000	0	90.0	50	150			J
Cadmium	0.0022	0.0020	0.002000	0	108	50	150			
Chromium	0.0058	0.0060	0.006000	0	97.3	50	150			J
Manganese	0.0018	0.0020	0.002000	0	92.5	50	150			J
Silver	0.0048	0.0050	0.005000	0	96.8	50	150			J

Sample ID **MB-D**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **D32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006183** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **MB-D**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **D32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006183** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-D**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **D32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006187** 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	99.0	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.49	0.0060	0.5000	0	98.6	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Magnesium	51	1.0	50.00	0	101	85	115			
Manganese	0.49	0.0020	0.5000	0	97.7	85	115			
Potassium	49	1.0	50.00	0	97.8	85	115			
Silver	0.098	0.0050	0.1000	0	97.6	85	115			
Sodium	50	1.0	50.00	0	100	85	115			
Zinc	0.50	0.010	0.5000	0	99.5	85	115			

Sample ID **LLLCS-D**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **D32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006188** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0024	0.0020	0.002000	0	119	50	150			
Cadmium	0.0016	0.0020	0.002000	0	78.5	50	150			J
Calcium	0.54	1.0	0.5000	0	108	50	150			J
Chromium	0.0052	0.0060	0.006000	0	87.2	50	150			J
Iron	0.021	0.020	0.02000	0	106	50	150			
Magnesium	0.53	1.0	0.5000	0	106	50	150			J
Manganese	0.0022	0.0020	0.002000	0	109	50	150			
Potassium	0.59	1.0	0.5000	0	119	50	150			J
Silver	0.0053	0.0050	0.005000	0	106	50	150			
Sodium	0.46	1.0	0.5000	0	91.5	50	150			J
Zinc	0.0056	0.010	0.005000	0	112	50	150			J

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup
Project: Pond Sampling

Sample ID	**MB-B**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**B32891**	RunNo:	**32891**					
Prep Date:		Analysis Date:	**3/18/2016**	SeqNo:	**1008295**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								
Sodium	ND	1.0								

Sample ID	**LCS-B**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID:	**B32891**	RunNo:	**32891**					
Prep Date:		Analysis Date:	**3/18/2016**	SeqNo:	**1008299**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.49	0.0060	0.5000	0	98.1	85	115			
Sodium	50	1.0	50.00	0	99.0	85	115			

Sample ID	**LLLCS-B**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**B32891**	RunNo:	**32891**					
Prep Date:		Analysis Date:	**3/18/2016**	SeqNo:	**1008300**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0065	0.0060	0.006000	0	109	50	150			
Sodium	0.54	1.0	0.5000	0	108	50	150			J

Sample ID	**MB-A**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**A33001**	RunNo:	**33001**					
Prep Date:		Analysis Date:	**3/23/2016**	SeqNo:	**1012281**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								

Sample ID	**LCS-A**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID:	**A33001**	RunNo:	**33001**					
Prep Date:		Analysis Date:	**3/23/2016**	SeqNo:	**1012282**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.50	0.0060	0.5000	0	99.4	85	115			

Sample ID	**LLLCS-A**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**A33001**	RunNo:	**33001**					
Prep Date:		Analysis Date:	**3/23/2016**	SeqNo:	**1012283**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0061	0.0060	0.006000	0	102	50	150			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup
Project: Pond Sampling

Sample ID **MB-24075**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **24075**	RunNo: **32607**
Prep Date: **3/3/2016**	Analysis Date: **3/7/2016**	SeqNo: **997674** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-24075**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **24075**	RunNo: **32607**
Prep Date: **3/3/2016**	Analysis Date: **3/7/2016**	SeqNo: **997675** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	99.0	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.49	0.0060	0.5000	0	98.0	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Manganese	0.48	0.0020	0.5000	0	96.6	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.50	0.010	0.5000	0	101	85	115			

Sample ID **LLLCS-24075**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **24075**	RunNo: **32607**
Prep Date: **3/3/2016**	Analysis Date: **3/7/2016**	SeqNo: **997676** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0017	0.0020	0.002000	0	84.0	50	150			J
Cadmium	0.0019	0.0020	0.002000	0	96.5	50	150			J
Chromium	0.0065	0.0060	0.006000	0	108	50	150			
Copper	0.0059	0.0060	0.006000	0	98.0	50	150			J
Iron	0.020	0.020	0.02000	0	101	50	150			
Manganese	0.0022	0.0020	0.002000	0	111	50	150			
Silver	0.0051	0.0050	0.005000	0	102	50	150			
Zinc	0.0057	0.010	0.005000	0	115	50	150			J

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33098**	RunNo: **33098**
Prep Date:	Analysis Date: **3/25/2016**	SeqNo: **1015701** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	93.2	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33098**	RunNo: **33098**
Prep Date:	Analysis Date: **3/25/2016**	SeqNo: **1015702** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	101	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33098**	RunNo: **33098**
Prep Date:	Analysis Date: **3/25/2016**	SeqNo: **1015703** 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: **B33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016767** 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	99.2	85	115			
Lead	0.012	0.00050	0.01250	0	98.4	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			
Uranium	0.012	0.00050	0.01250	0	95.6	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016769** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	104	50	150			
Lead	0.00052	0.00050	0.0005000	0	104	50	150			
Selenium	0.0011	0.0010	0.001000	0	108	50	150			
Uranium	0.00049	0.00050	0.0005000	0	98.4	50	150			J

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016771** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	0.000011	0.00050								J

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID	**MB-24075**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**24075**	RunNo:	**32687**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000380**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-24075**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**24075**	RunNo:	**32687**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000383**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.1	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.025	0.0010	0.02500	0	98.0	85	115			
Uranium	0.012	0.00050	0.01250	0	98.8	85	115			

Sample ID	**MSLLLCS-24075**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**24075**	RunNo:	**32687**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000386**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00087	0.0010	0.001000	0	86.9	50	150			J
Lead	0.00046	0.00050	0.0005000	0	91.5	50	150			J
Selenium	0.00081	0.0010	0.001000	0	81.0	50	150			J
Uranium	0.00044	0.00050	0.0005000	0	87.4	50	150			J

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID	**MB-24081**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**24081**	RunNo:	**32562**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/4/2016**	SeqNo:	**996234**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-24081**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**24081**	RunNo:	**32562**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/4/2016**	SeqNo:	**996235**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	107	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32563**	RunNo: **32563**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **996382** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	0.092	0.50								J

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32563**	RunNo: **32563**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **996383** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	105	90	110			
Nitrogen, Nitrite (As N)	0.97	0.10	1.000	0	97.0	90	110			
Bromide	2.5	0.10	2.500	0	101	90	110			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	102	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.2	90	110			
Sulfate	9.9	0.50	10.00	0	98.7	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32788**	RunNo: **32788**
Prep Date:	Analysis Date: **3/14/2016**	SeqNo: **1004671** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	ND	0.10								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32788**	RunNo: **32788**
Prep Date:	Analysis Date: **3/14/2016**	SeqNo: **1004672** 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	90.5	90	110			
Sulfate	9.3	0.50	10.00	0	93.2	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32822**	RunNo: **32822**
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1005748** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R32822**	RunNo: **32822**							
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1005748**	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: **R32822**	RunNo: **32822**							
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1005749**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.7	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **A32854**	RunNo: **32854**							
Prep Date:	Analysis Date: **3/17/2016**	SeqNo: **1007070**	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: **A32854**	RunNo: **32854**							
Prep Date:	Analysis Date: **3/17/2016**	SeqNo: **1007071**	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	100	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32614**	RunNo: **32614**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **997827** 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)	0.15	1.0								J
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	0.32	4.0								J
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	0.16	1.0								J
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32614**	RunNo: **32614**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **997827** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		106	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.9	70	130			
Surr: Dibromofluoromethane	11		10.00		115	70	130			
Surr: Toluene-d8	9.5		10.00		94.7	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32614**	RunNo: **32614**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **997830** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	70	130			
Toluene	20	1.0	20.00	0	99.2	70	130			
Chlorobenzene	21	1.0	20.00	0	104	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32614**	RunNo: **32614**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **997830** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	22	1.0	20.00	0	110	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	93.8	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.8	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	9.7		10.00		97.2	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **1603141-001cms** SampType: **MS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **Pond 9** Batch ID: **24121** RunNo: **32760**

Prep Date: **3/8/2016** Analysis Date: **3/13/2016** SeqNo: **1003939** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	71	10	100.0	0	71.2	46.4	121			
4-Chloro-3-methylphenol	140	10	200.0	0	70.3	45.3	135			
2-Chlorophenol	150	10	200.0	0	72.7	23.9	133			
1,4-Dichlorobenzene	72	10	100.0	0	71.9	42.6	104			
2,4-Dinitrotoluene	55	10	100.0	0	54.7	28.9	126			
N-Nitrosodi-n-propylamine	71	10	100.0	0	70.6	49.2	117			
4-Nitrophenol	24	10	200.0	0	12.2	18.1	97.2			S
Pentachlorophenol	48	20	200.0	0	24.1	24.8	127			S
Phenol	130	10	200.0	0	63.7	17.9	93.6			
Pyrene	56	10	100.0	0	56.2	29.6	142			
1,2,4-Trichlorobenzene	75	10	100.0	0	75.1	39.5	109			
Surr: 2-Fluorophenol	95		200.0		47.6	4.63	113			
Surr: Phenol-d5	120		200.0		60.8	4.13	124			
Surr: 2,4,6-Tribromophenol	100		200.0		52.4	5.14	132			
Surr: Nitrobenzene-d5	68		100.0		67.9	9.13	140			
Surr: 2-Fluorobiphenyl	65		100.0		64.8	10.8	132			
Surr: 4-Terphenyl-d14	79		100.0		78.9	12.9	107			

Sample ID **1603141-001cmsd** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **Pond 9** Batch ID: **24121** RunNo: **32760**

Prep Date: **3/8/2016** Analysis Date: **3/13/2016** SeqNo: **1003940** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	77	10	100.0	0	77.3	25.5	126	8.24	31.3	
4-Chloro-3-methylphenol	170	10	200.0	0	83.5	26.6	138	17.2	29	
2-Chlorophenol	160	10	200.0	0	79.5	23.9	133	8.92	28.4	
1,4-Dichlorobenzene	74	10	100.0	0	74.0	20.3	122	2.91	28.2	
2,4-Dinitrotoluene	64	10	100.0	0	63.8	40	94.5	15.3	22.9	
N-Nitrosodi-n-propylamine	82	10	100.0	0	81.8	25.9	131	14.8	28.8	
4-Nitrophenol	28	10	200.0	0	14.1	17.2	88.9	15.1	41.5	S
Pentachlorophenol	49	20	200.0	0	24.4	13.6	123	1.28	45.1	
Phenol	130	10	200.0	0	66.4	20.7	100	4.26	33.9	
Pyrene	59	10	100.0	0	58.8	21.8	129	4.55	33.6	
1,2,4-Trichlorobenzene	82	10	100.0	0	82.3	22	130	9.15	28.2	
Surr: 2-Fluorophenol	97		200.0		48.4	4.63	113	0	0	
Surr: Phenol-d5	130		200.0		64.0	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	110		200.0		53.2	5.14	132	0	0	
Surr: Nitrobenzene-d5	77		100.0		77.4	9.13	140	0	0	
Surr: 2-Fluorobiphenyl	72		100.0		71.9	10.8	132	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **1603141-001cmsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **Pond 9**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003940** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	38		100.0		38.2	12.9	107	0	0	

Sample ID **mb-24121**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003941** Units: **µg/L**

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **mb-24121**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003941** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **mb-24121**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003941** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	250		200.0		123	4.63	113			S
Surr: Phenol-d5	260		200.0		131	4.13	124			S
Surr: 2,4,6-Tribromophenol	230		200.0		116	5.14	132			
Surr: Nitrobenzene-d5	130		100.0		128	9.13	140			
Surr: 2-Fluorobiphenyl	120		100.0		118	10.8	132			
Surr: 4-Terphenyl-d14	130		100.0		131	12.9	107			S

Sample ID **lcs-24121**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003943** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	100	10	100.0	0	104	40.2	107			
4-Chloro-3-methylphenol	250	10	200.0	0	125	48.2	107			S
2-Chlorophenol	220	10	200.0	0	110	42.5	106			S
1,4-Dichlorobenzene	110	10	100.0	0	109	31.6	111			
2,4-Dinitrotoluene	78	10	100.0	0	78.1	33.6	86.5			
N-Nitrosodi-n-propylamine	110	10	100.0	0	108	44	106			S
4-Nitrophenol	180	10	200.0	0	88.4	25.5	109			
Pentachlorophenol	170	20	200.0	0	84.6	38.8	97.8			
Phenol	210	10	200.0	0	107	22.7	116			
Pyrene	100	10	100.0	0	103	29.3	138			
1,2,4-Trichlorobenzene	110	10	100.0	0	115	35.3	123			
Surr: 2-Fluorophenol	180		200.0		88.4	4.63	113			
Surr: Phenol-d5	200		200.0		101	4.13	124			
Surr: 2,4,6-Tribromophenol	230		200.0		113	5.14	132			
Surr: Nitrobenzene-d5	96		100.0		96.0	9.13	140			
Surr: 2-Fluorobiphenyl	90		100.0		90.5	10.8	132			
Surr: 4-Terphenyl-d14	99		100.0		99.4	12.9	107			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup
Project: Pond Sampling

Sample ID **MB-24066**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **24066**	RunNo: **32756**							
Prep Date: **3/3/2016**	Analysis Date: **3/8/2016**	SeqNo: **1002743**	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--24066**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **24066**	RunNo: **32756**							
Prep Date: **3/3/2016**	Analysis Date: **3/8/2016**	SeqNo: **1002744**	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-24066**	SampType: **LCS**	TestCode: **SM5210B: BOD**							
Client ID: **LCSW**	Batch ID: **24066**	RunNo: **32756**							
Prep Date: **3/3/2016**	Analysis Date: **3/8/2016**	SeqNo: **1002745**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	140	2.0	198.0	0	69.8	61	138			

Sample ID **LCSD-24066**	SampType: **LCSD**	TestCode: **SM5210B: BOD**							
Client ID: **LCSS02**	Batch ID: **24066**	RunNo: **32756**							
Prep Date: **3/3/2016**	Analysis Date: **3/8/2016**	SeqNo: **1002746**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	140	2.0	198.0	0	70.8	61	138	1.44	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID	**MB-24052**	SampType:	**MBLK**	TestCode:	**SM 9223B Fecal Indicator: E. coli MPN**				
Client ID:	**PBW**	Batch ID:	**24052**	RunNo:	**32554**				
Prep Date:	**3/2/2016**	Analysis Date:	**3/3/2016**	SeqNo:	**995924**	Units:	**CFU/100ml**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
E. Coli	<1	1.000								

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1603141** RcptNo: **1**

Received by/date: AG 03/02/16

Logged By: **Ashley Gallegos** **3/2/2016 4:16:00 PM** AG

Completed By: **Ashley Gallegos** **3/2/2016 5:13:10 PM** AG

Reviewed By: AG 3/3/16 03/03/16

Chain of Custody

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

Log In

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

Special Handling (if applicable)

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

Person Notified: _____ Date _____

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

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

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

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: #2 GIANT CROSSING ROAD
GALLUP NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard / [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type) EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: POND SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

HEAL No. 1603141

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	~~RCRA 8 Metals~~ BOD	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	GenChem Conductivity, pH, Spec Cat	WQCC Metals (Total & Dissolved)	COD	E.COLI	Air Bubbles (Y or N)
3/1/16	1100	WATER	POND 9	40 ML VOA-3	HCL	-001										✓						
				1 LITER AMBER-2	NEAT												✓					
				125 ML PLASTIC-1	H_2SO_4													✓				
				125 ML PLASTIC-1	HNO_3													✓	✓			
				500 ML PLASTIC-1	HNO_3														✓			
				500 ML PLASTIC-1	NEAT														✓			
				1 LITER PLASTIC-1	NEAT								✓									
				500 ML PLASTIC-1	H_2SO_4															✓		
↓	↓	↓	↓	100 ML PLASTIC-1	NEAT																✓	

Date	Time	Relinquished by:	Received by:	Date	Time
3/1/16	1300			3/1/16	1315
3/1/16	1616			03/02/16	0814

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

ent: WESTERN REFINING SW, INC.
ALLUP REFINERY
ailing Address: 92 GIANT CROSSING ROAD
ALLUP, NM 87301
one #: 505-722-0231
ail or Fax#: CHERYL.JOHNSON@WNR.COM
/QC Package: Standard ☒ Level 4 (Full Validation)
creditation: ☒ NELAP ☐ Other
EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: POND SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1603141
3/1/16	1200	WATER	POND 6	40 ML VOA-3	HCL	-002
				1 LITER AMBER-1	NEAT	
				125 ML PLASTIC-1	H_2SO_4	
				125 ML PLASTIC-1	HNO_3	
				500 ML PLASTIC-1	HNO_3	
				1 LITER PLASTIC-1	NEAT	
				500 ML PLASTIC-1	NEAT	
				500 ML PLASTIC-1	H_2SO_4	
				100 ML PLASTIC-1	NEAT	
—	—	WATER	TRIP BLANK	40 ML VOA-4	HCL	-003

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	~~RCRA 8 Metals~~ BOD	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	GENCHEM - PH, SPEC CONDUCTANCE, CATIONS/ANIONS	WQEC METALS TOTAL & DISSOLVED	COD	ECOLI	Air Bubbles (Y or N)
									✓	✓					
											✓				
											✓	✓			
						✓						✓			
												✓			
												✓			
													✓		
														✓	
									✓						

Date: 3/1/16 Time: 1300 Relinquished by:
Date: 3/1/16 Time: 1616 Relinquished by:

Received by: Date: 3/2/16 Time: 1315
Received by: Date: 03/02/16 Time: 1616

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 15, 2016

Cheryl Johnson

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

RE: Pond Sampling OrderNo.: 1603233

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 9 sample(s) on 3/3/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 3
Project: Pond Sampling
Collection Date: 3/2/2016 2:45:00 PM
Lab ID: 1603233-001
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	29	0.45	2.0	*	mg/L	20	3/4/2016 12:48:19 PM	R32615
Chloride	4400	14	250		mg/L	500	3/15/2016 12:41:48 PM	R32822
Bromide	18	0.65	2.0		mg/L	20	3/15/2016 12:16:59 PM	R32822
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5		mg/L	5	3/4/2016 12:11:07 PM	R32615
Sulfate	1300	3.2	25		mg/L	50	3/15/2016 12:29:24 PM	R32822
Nitrate+Nitrite as N	ND	1.7	4.0		mg/L	20	3/8/2016 3:17:52 PM	R32663
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.16	0.0013	0.0020		mg/L	1	3/18/2016 5:07:55 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 5:07:55 PM	C32891
Calcium	400	1.3	5.0		mg/L	5	3/18/2016 5:09:45 PM	C32891
Chromium	0.0085	0.0018	0.0060		mg/L	1	3/18/2016 5:07:55 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/18/2016 5:07:55 PM	C32891
Iron	0.59	0.0091	0.020	*	mg/L	1	3/18/2016 5:07:55 PM	C32891
Magnesium	110	0.065	5.0		mg/L	5	3/18/2016 5:09:45 PM	C32891
Manganese	0.36	0.00032	0.0020	*	mg/L	1	3/18/2016 5:07:55 PM	C32891
Potassium	150	0.89	5.0		mg/L	5	3/18/2016 5:09:45 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 5:07:55 PM	C32891
Sodium	2900	4.8	50		mg/L	50	3/23/2016 4:47:30 PM	C33001
Zinc	0.0099	0.0028	0.010	J	mg/L	1	3/18/2016 5:07:55 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.18	0.0011	0.0020		mg/L	1	3/18/2016 3:57:00 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 3:57:00 PM	24150
Chromium	0.0095	0.0022	0.0060		mg/L	1	3/18/2016 3:57:00 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 3:57:00 PM	24150
Iron	1.4	0.036	0.10	*	mg/L	5	3/21/2016 1:16:32 PM	24150
Manganese	0.38	0.0015	0.0020	*	mg/L	1	3/18/2016 3:57:00 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/21/2016 1:00:05 PM	24150
Zinc	0.015	0.0039	0.010		mg/L	1	3/18/2016 3:57:00 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.011	0.00032	0.0050	*	mg/L	5	3/28/2016 7:14:36 PM	B33120
Lead	0.00054	0.00013	0.0025	J	mg/L	5	3/28/2016 7:14:36 PM	B33120
Selenium	0.021	0.0039	0.020		mg/L	20	3/28/2016 7:23:46 PM	B33120
Uranium	0.0037	0.000024	0.0025		mg/L	5	3/28/2016 7:14:36 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.013	0.0029	0.010	*	mg/L	10	3/23/2016 4:22:38 PM	24250
Lead	0.00083	0.00047	0.0050	J	mg/L	10	3/23/2016 4:22:38 PM	24250
Selenium	0.019	0.0025	0.020	J	mg/L	20	3/23/2016 4:04:31 PM	24250

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

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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 3
Project: Pond Sampling
Collection Date: 3/2/2016 2:45:00 PM
Lab ID: 1603233-001
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0042	0.000049	0.0050	J	mg/L	10	3/23/2016 4:22:38 PM	24250
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000079	0.000053	0.00020	J	mg/L	1	3/10/2016 11:11:25 AM	24156
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Aniline	ND	9.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Benzoic acid	19	9.8	20	J	µg/L	1	3/13/2016 9:48:47 PM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 9:48:47 PM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Carbazole	ND	7.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 9:48:47 PM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 9:48:47 PM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 9:48:47 PM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 9:48:47 PM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 9:48:47 PM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 9:48:47 PM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/13/2016 9:48:47 PM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 9:48:47 PM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 9:48:47 PM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Fluorene	ND	7.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2-Methylphenol	14	8.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
3+4-Methylphenol	95	7.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 9:48:47 PM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 9:48:47 PM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 9:48:47 PM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Phenol	91	5.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 9:48:47 PM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Surr: 2-Fluorophenol	64.1	0	4.63-113		%Rec	1	3/13/2016 9:48:47 PM	24121
Surr: Phenol-d5	57.9	0	4.13-124		%Rec	1	3/13/2016 9:48:47 PM	24121

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 3
Project: Pond Sampling
Collection Date: 3/2/2016 2:45:00 PM
Lab ID: 1603233-001
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	93.6	0	5.14-132		%Rec	1	3/13/2016 9:48:47 PM	24121
Surr: Nitrobenzene-d5	92.2	0	9.13-140		%Rec	1	3/13/2016 9:48:47 PM	24121
Surr: 2-Fluorobiphenyl	72.0	0	10.8-132		%Rec	1	3/13/2016 9:48:47 PM	24121
Surr: 4-Terphenyl-d14	61.7	0	12.9-107		%Rec	1	3/13/2016 9:48:47 PM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.48	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Toluene	ND	0.45	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Naphthalene	ND	0.42	10		µg/L	5	3/10/2016 7:08:53 PM	R32729
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/10/2016 7:08:53 PM	R32729
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/10/2016 7:08:53 PM	R32729
Acetone	32	4.4	50	J	µg/L	5	3/10/2016 7:08:53 PM	R32729
Bromobenzene	ND	0.40	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Bromoform	ND	0.51	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Bromomethane	16	3.9	15		µg/L	5	3/10/2016 7:08:53 PM	R32729
2-Butanone	3.7	1.6	50	J	µg/L	5	3/10/2016 7:08:53 PM	R32729
Carbon disulfide	120	3.0	50		µg/L	5	3/10/2016 7:08:53 PM	R32729
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Chloroethane	ND	0.73	10		µg/L	5	3/10/2016 7:08:53 PM	R32729
Chloroform	ND	0.44	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Chloromethane	1.4	1.1	15	J	µg/L	5	3/10/2016 7:08:53 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/10/2016 7:08:53 PM	R32729
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Dibromomethane	ND	0.60	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 3
Project: Pond Sampling
Collection Date: 3/2/2016 2:45:00 PM
Lab ID: 1603233-001
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
2-Hexanone	ND	1.8	50		µg/L	5	3/10/2016 7:08:53 PM	R32729
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/10/2016 7:08:53 PM	R32729
Methylene Chloride	ND	0.31	15		µg/L	5	3/10/2016 7:08:53 PM	R32729
n-Butylbenzene	ND	0.80	15		µg/L	5	3/10/2016 7:08:53 PM	R32729
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Styrene	ND	0.48	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/10/2016 7:08:53 PM	R32729
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/10/2016 7:08:53 PM	R32729
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/10/2016 7:08:53 PM	R32729
Surr: 1,2-Dichloroethane-d4	94.8	0	70-130		%Rec	5	3/10/2016 7:08:53 PM	R32729
Surr: 4-Bromofluorobenzene	106	0	70-130		%Rec	5	3/10/2016 7:08:53 PM	R32729
Surr: Dibromofluoromethane	112	0	70-130		%Rec	5	3/10/2016 7:08:53 PM	R32729
Surr: Toluene-d8	107	0	70-130		%Rec	5	3/10/2016 7:08:53 PM	R32729
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	18000	0.10	0.10		µmhos/c	10	3/8/2016 7:21:24 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 3
Project: Pond Sampling
Collection Date: 3/2/2016 2:45:00 PM
Lab ID: 1603233-001
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.88	0.100	1.68	H	pH units	1	3/7/2016 7:19:24 PM	R32629

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Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 2
Project: Pond Sampling
Collection Date: 3/2/2016 3:00:00 PM
Lab ID: 1603233-002
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	5.0	0.45	2.0	*	mg/L	20	3/4/2016 1:13:08 PM	R32615
Chloride	3100	14	250		mg/L	500	3/15/2016 1:19:01 PM	R32822
Bromide	12	0.65	2.0		mg/L	20	3/15/2016 12:54:12 PM	R32822
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5		mg/L	5	3/4/2016 1:00:43 PM	R32615
Sulfate	1400	3.2	25		mg/L	50	3/15/2016 1:06:36 PM	R32822
Nitrate+Nitrite as N	ND	1.7	4.0		mg/L	20	3/8/2016 3:30:17 PM	R32663
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.13	0.0013	0.0020		mg/L	1	3/18/2016 5:11:49 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 5:11:49 PM	C32891
Calcium	340	1.3	5.0		mg/L	5	3/18/2016 5:13:53 PM	C32891
Chromium	0.0069	0.0018	0.0060		mg/L	1	3/18/2016 5:11:49 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/18/2016 5:11:49 PM	C32891
Iron	0.63	0.0091	0.020	*	mg/L	1	3/18/2016 5:11:49 PM	C32891
Magnesium	87	0.013	1.0		mg/L	1	3/18/2016 5:11:49 PM	C32891
Manganese	0.22	0.00032	0.0020	*	mg/L	1	3/18/2016 5:11:49 PM	C32891
Potassium	130	0.89	5.0		mg/L	5	3/18/2016 5:13:53 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 5:11:49 PM	C32891
Sodium	2300	4.8	50		mg/L	50	3/23/2016 6:24:55 PM	C33001
Zinc	0.016	0.0028	0.010		mg/L	1	3/18/2016 5:11:49 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.13	0.0011	0.0020		mg/L	1	3/18/2016 4:08:34 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 4:08:34 PM	24150
Chromium	0.0072	0.0022	0.0060		mg/L	1	3/18/2016 4:08:34 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 4:08:34 PM	24150
Iron	0.85	0.036	0.10	*	mg/L	5	3/21/2016 1:22:45 PM	24150
Manganese	0.22	0.0015	0.0020	*	mg/L	1	3/18/2016 4:08:34 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 4:08:34 PM	24150
Zinc	0.014	0.0039	0.010		mg/L	1	3/18/2016 4:08:34 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0098	0.00032	0.0050		mg/L	5	3/28/2016 7:26:49 PM	B33120
Lead	0.00039	0.00013	0.0025	J	mg/L	5	3/28/2016 7:26:49 PM	B33120
Selenium	0.017	0.0039	0.020	J	mg/L	20	3/28/2016 7:36:04 PM	B33120
Uranium	0.0044	0.000024	0.0025		mg/L	5	3/28/2016 7:26:49 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.011	0.0015	0.0050	*	mg/L	5	3/23/2016 4:07:31 PM	24250
Lead	ND	0.00047	0.0050		mg/L	10	3/23/2016 4:25:38 PM	24250
Selenium	0.018	0.0025	0.020	J	mg/L	20	3/23/2016 4:28:40 PM	24250

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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 2
Project: Pond Sampling
Collection Date: 3/2/2016 3:00:00 PM
Lab ID: 1603233-002
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0051	0.000049	0.0050		mg/L	10	3/23/2016 4:25:38 PM	24250
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000071	0.000053	0.00020	J	mg/L	1	3/10/2016 11:13:31 AM	24156
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Aniline	ND	9.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/13/2016 10:18:18 PM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 10:18:18 PM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Carbazole	ND	7.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 10:18:18 PM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 10:18:18 PM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 10:18:18 PM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 10:18:18 PM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 10:18:18 PM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 2
Project: Pond Sampling
Collection Date: 3/2/2016 3:00:00 PM
Lab ID: 1603233-002
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 10:18:18 PM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/13/2016 10:18:18 PM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 10:18:18 PM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 10:18:18 PM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Fluorene	ND	7.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2-Methylphenol	14	8.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
3+4-Methylphenol	64	7.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 10:18:18 PM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 10:18:18 PM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 10:18:18 PM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Phenol	94	5.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 10:18:18 PM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Surr: 2-Fluorophenol	39.7	0	4.63-113		%Rec	1	3/13/2016 10:18:18 PM	24121
Surr: Phenol-d5	39.0	0	4.13-124		%Rec	1	3/13/2016 10:18:18 PM	24121

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 2
Project: Pond Sampling
Collection Date: 3/2/2016 3:00:00 PM
Lab ID: 1603233-002
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	69.4	0	5.14-132		%Rec	1	3/13/2016 10:18:18 PM	24121
Surr: Nitrobenzene-d5	51.8	0	9.13-140		%Rec	1	3/13/2016 10:18:18 PM	24121
Surr: 2-Fluorobiphenyl	45.1	0	10.8-132		%Rec	1	3/13/2016 10:18:18 PM	24121
Surr: 4-Terphenyl-d14	38.1	0	12.9-107		%Rec	1	3/13/2016 10:18:18 PM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	24	0.48	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Toluene	44	0.45	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Ethylbenzene	4.9	0.56	5.0	J	µg/L	5	3/10/2016 7:37:26 PM	R32729
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,2,4-Trimethylbenzene	7.1	0.52	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,3,5-Trimethylbenzene	1.8	0.58	5.0	J	µg/L	5	3/10/2016 7:37:26 PM	R32729
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Naphthalene	1.0	0.42	10	J	µg/L	5	3/10/2016 7:37:26 PM	R32729
1-Methylnaphthalene	1.6	1.0	20	J	µg/L	5	3/10/2016 7:37:26 PM	R32729
2-Methylnaphthalene	1.6	0.79	20	J	µg/L	5	3/10/2016 7:37:26 PM	R32729
Acetone	130	4.4	50		µg/L	5	3/10/2016 7:37:26 PM	R32729
Bromobenzene	ND	0.40	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Bromoform	ND	0.51	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Bromomethane	ND	3.9	15		µg/L	5	3/10/2016 7:37:26 PM	R32729
2-Butanone	6.1	1.6	50	J	µg/L	5	3/10/2016 7:37:26 PM	R32729
Carbon disulfide	64	3.0	50		µg/L	5	3/10/2016 7:37:26 PM	R32729
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Chloroethane	ND	0.73	10		µg/L	5	3/10/2016 7:37:26 PM	R32729
Chloroform	ND	0.44	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Chloromethane	ND	1.1	15		µg/L	5	3/10/2016 7:37:26 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/10/2016 7:37:26 PM	R32729
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Dibromomethane	ND	0.60	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729

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Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 2
Project: Pond Sampling
Collection Date: 3/2/2016 3:00:00 PM
Lab ID: 1603233-002
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
2-Hexanone	ND	1.8	50		µg/L	5	3/10/2016 7:37:26 PM	R32729
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/10/2016 7:37:26 PM	R32729
Methylene Chloride	ND	0.31	15		µg/L	5	3/10/2016 7:37:26 PM	R32729
n-Butylbenzene	ND	0.80	15		µg/L	5	3/10/2016 7:37:26 PM	R32729
n-Propylbenzene	0.80	0.66	5.0	J	µg/L	5	3/10/2016 7:37:26 PM	R32729
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Styrene	ND	0.48	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/10/2016 7:37:26 PM	R32729
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/10/2016 7:37:26 PM	R32729
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Xylenes, Total	32	1.6	7.5		µg/L	5	3/10/2016 7:37:26 PM	R32729
Surr: 1,2-Dichloroethane-d4	96.9	0	70-130		%Rec	5	3/10/2016 7:37:26 PM	R32729
Surr: 4-Bromofluorobenzene	98.8	0	70-130		%Rec	5	3/10/2016 7:37:26 PM	R32729
Surr: Dibromofluoromethane	110	0	70-130		%Rec	5	3/10/2016 7:37:26 PM	R32729
Surr: Toluene-d8	102	0	70-130		%Rec	5	3/10/2016 7:37:26 PM	R32729
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	16000	0.10	0.10		µmhos/c	10	3/8/2016 7:25:44 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 2
Project: Pond Sampling
Collection Date: 3/2/2016 3:00:00 PM
Lab ID: 1603233-002
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.66	0.100	1.68	H	pH units	1	3/7/2016 7:23:47 PM	R32629

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 5
Project: Pond Sampling
Collection Date: 3/2/2016 2:08:00 PM
Lab ID: 1603233-003
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	27	0.45	2.0	*	mg/L	20	3/4/2016 1:37:57 PM	R32615
Chloride	9100	27	500		mg/L	1000	3/15/2016 1:31:26 PM	R32822
Bromide	6.4	1.6	5.0		mg/L	50	3/17/2016 9:03:27 AM	A32854
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5		mg/L	5	3/4/2016 1:25:33 PM	R32615
Sulfate	2000	64	500		mg/L	1000	3/15/2016 1:31:26 PM	R32822
Nitrate+Nitrite as N	ND	4.2	10		mg/L	50	3/8/2016 3:42:41 PM	R32663
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.15	0.0013	0.0020		mg/L	1	3/18/2016 5:15:59 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 5:15:59 PM	C32891
Calcium	380	1.3	5.0		mg/L	5	3/18/2016 5:17:46 PM	C32891
Chromium	0.0097	0.0018	0.0060		mg/L	1	3/18/2016 5:15:59 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/18/2016 5:15:59 PM	C32891
Iron	0.45	0.0091	0.020	*	mg/L	1	3/18/2016 5:15:59 PM	C32891
Magnesium	180	0.065	5.0		mg/L	5	3/18/2016 5:17:46 PM	C32891
Manganese	0.43	0.00032	0.0020	*	mg/L	1	3/18/2016 5:15:59 PM	C32891
Potassium	190	0.89	5.0		mg/L	5	3/18/2016 5:17:46 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 5:15:59 PM	C32891
Sodium	5200	9.6	100		mg/L	100	3/23/2016 4:49:18 PM	C33001
Zinc	0.020	0.0028	0.010		mg/L	1	3/18/2016 5:15:59 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.15	0.0011	0.0020		mg/L	1	3/18/2016 4:14:51 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 4:14:51 PM	24150
Chromium	0.0090	0.0022	0.0060		mg/L	1	3/18/2016 4:14:51 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 4:14:51 PM	24150
Iron	0.60	0.0072	0.020	*	mg/L	1	3/18/2016 4:14:51 PM	24150
Manganese	0.43	0.0015	0.0020	*	mg/L	1	3/18/2016 4:14:51 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 4:14:51 PM	24150
Zinc	0.011	0.0039	0.010		mg/L	1	3/18/2016 4:14:51 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.020	0.00032	0.0050	*	mg/L	5	3/28/2016 7:39:08 PM	B33120
Lead	ND	0.00053	0.010		mg/L	20	3/28/2016 7:42:11 PM	B33120
Selenium	0.019	0.0039	0.020	J	mg/L	20	3/28/2016 7:42:11 PM	B33120
Uranium	0.0034	0.000096	0.010	J	mg/L	20	3/28/2016 7:42:11 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.022	0.0029	0.010	*	mg/L	10	3/23/2016 4:55:48 PM	24250
Lead	ND	0.00047	0.0050		mg/L	10	3/23/2016 4:55:48 PM	24250
Selenium	0.020	0.0025	0.020		mg/L	20	3/23/2016 4:34:41 PM	24250

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 5
Project: Pond Sampling
Collection Date: 3/2/2016 2:08:00 PM
Lab ID: 1603233-003
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0039	0.000049	0.0050	J	mg/L	10	3/23/2016 4:55:48 PM	24250
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000067	0.000053	0.00020	J	mg/L	1	3/10/2016 11:15:37 AM	24156
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Aniline	ND	9.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/13/2016 10:47:45 PM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 10:47:45 PM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Carbazole	ND	7.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 10:47:45 PM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 10:47:45 PM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 10:47:45 PM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 10:47:45 PM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 10:47:45 PM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 5
Project: Pond Sampling
Collection Date: 3/2/2016 2:08:00 PM
Lab ID: 1603233-003
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 10:47:45 PM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/13/2016 10:47:45 PM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 10:47:45 PM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 10:47:45 PM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Fluorene	ND	7.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2-Methylphenol	ND	8.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
3+4-Methylphenol	34	7.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 10:47:45 PM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 10:47:45 PM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 10:47:45 PM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Phenol	18	5.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 10:47:45 PM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Surr: 2-Fluorophenol	42.7	0	4.63-113		%Rec	1	3/13/2016 10:47:45 PM	24121
Surr: Phenol-d5	47.3	0	4.13-124		%Rec	1	3/13/2016 10:47:45 PM	24121

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 5
Project: Pond Sampling
Collection Date: 3/2/2016 2:08:00 PM
Lab ID: 1603233-003
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	69.8	0	5.14-132		%Rec	1	3/13/2016 10:47:45 PM	24121
Surr: Nitrobenzene-d5	81.3	0	9.13-140		%Rec	1	3/13/2016 10:47:45 PM	24121
Surr: 2-Fluorobiphenyl	72.5	0	10.8-132		%Rec	1	3/13/2016 10:47:45 PM	24121
Surr: 4-Terphenyl-d14	47.6	0	12.9-107		%Rec	1	3/13/2016 10:47:45 PM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.48	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Toluene	ND	0.45	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Naphthalene	ND	0.42	10		µg/L	5	3/10/2016 8:06:14 PM	R32729
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/10/2016 8:06:14 PM	R32729
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/10/2016 8:06:14 PM	R32729
Acetone	14	4.4	50	J	µg/L	5	3/10/2016 8:06:14 PM	R32729
Bromobenzene	ND	0.40	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Bromoform	ND	0.51	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Bromomethane	ND	3.9	15		µg/L	5	3/10/2016 8:06:14 PM	R32729
2-Butanone	1.7	1.6	50	J	µg/L	5	3/10/2016 8:06:14 PM	R32729
Carbon disulfide	10	3.0	50	J	µg/L	5	3/10/2016 8:06:14 PM	R32729
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Chloroethane	ND	0.73	10		µg/L	5	3/10/2016 8:06:14 PM	R32729
Chloroform	ND	0.44	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Chloromethane	ND	1.1	15		µg/L	5	3/10/2016 8:06:14 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/10/2016 8:06:14 PM	R32729
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Dibromomethane	ND	0.60	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 5
Project: Pond Sampling
Collection Date: 3/2/2016 2:08:00 PM
Lab ID: 1603233-003
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
2-Hexanone	ND	1.8	50		µg/L	5	3/10/2016 8:06:14 PM	R32729
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/10/2016 8:06:14 PM	R32729
Methylene Chloride	ND	0.31	15		µg/L	5	3/10/2016 8:06:14 PM	R32729
n-Butylbenzene	ND	0.80	15		µg/L	5	3/10/2016 8:06:14 PM	R32729
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Styrene	ND	0.48	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/10/2016 8:06:14 PM	R32729
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/10/2016 8:06:14 PM	R32729
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/10/2016 8:06:14 PM	R32729
Surr: 1,2-Dichloroethane-d4	94.1	0	70-130		%Rec	5	3/10/2016 8:06:14 PM	R32729
Surr: 4-Bromofluorobenzene	97.0	0	70-130		%Rec	5	3/10/2016 8:06:14 PM	R32729
Surr: Dibromofluoromethane	109	0	70-130		%Rec	5	3/10/2016 8:06:14 PM	R32729
Surr: Toluene-d8	101	0	70-130		%Rec	5	3/10/2016 8:06:14 PM	R32729
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	31000	0.10	0.10		µmhos/c	10	3/8/2016 7:29:56 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	

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Hall Environmental Analysis Laboratory, Inc.

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Client Sample ID: Pond 5
Project: Pond Sampling
Collection Date: 3/2/2016 2:08:00 PM
Lab ID: 1603233-003
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.77	0.100	1.68	H	pH units	1	3/7/2016 7:28:10 PM	R32629

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 4
Project: Pond Sampling
Collection Date: 3/2/2016 2:25:00 PM
Lab ID: 1603233-004
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	24	0.45	2.0	*	mg/L	20	3/4/2016 2:27:36 PM	R32615
Chloride	8000	27	500		mg/L	1000	3/15/2016 2:21:05 PM	R32822
Bromide	23	1.6	5.0		mg/L	50	3/15/2016 1:43:51 PM	R32822
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5		mg/L	5	3/4/2016 2:15:11 PM	R32615
Sulfate	1800	3.2	25		mg/L	50	3/15/2016 1:43:51 PM	R32822
Nitrate+Nitrite as N	ND	4.2	10		mg/L	50	3/8/2016 3:55:05 PM	R32663
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.15	0.0013	0.0020		mg/L	1	3/18/2016 5:19:56 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 5:19:56 PM	C32891
Calcium	410	1.3	5.0		mg/L	5	3/18/2016 5:31:42 PM	C32891
Chromium	0.0088	0.0018	0.0060		mg/L	1	3/18/2016 5:19:56 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/18/2016 5:19:56 PM	C32891
Iron	0.49	0.0091	0.020	*	mg/L	1	3/18/2016 5:19:56 PM	C32891
Magnesium	190	0.065	5.0		mg/L	5	3/18/2016 5:31:42 PM	C32891
Manganese	0.43	0.00032	0.0020	*	mg/L	1	3/18/2016 5:19:56 PM	C32891
Potassium	200	0.89	5.0		mg/L	5	3/18/2016 5:31:42 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 5:19:56 PM	C32891
Sodium	5000	9.6	100		mg/L	100	3/23/2016 4:51:08 PM	C33001
Zinc	0.018	0.0028	0.010		mg/L	1	3/18/2016 5:19:56 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.15	0.0011	0.0020		mg/L	1	3/18/2016 4:16:43 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 4:16:43 PM	24150
Chromium	0.0086	0.0022	0.0060		mg/L	1	3/18/2016 4:16:43 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 4:16:43 PM	24150
Iron	0.63	0.0072	0.020	*	mg/L	1	3/18/2016 4:16:43 PM	24150
Manganese	0.43	0.0015	0.0020	*	mg/L	1	3/18/2016 4:16:43 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 4:16:43 PM	24150
Zinc	0.012	0.0039	0.010		mg/L	1	3/18/2016 4:16:43 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.019	0.00032	0.0050	*	mg/L	5	3/28/2016 7:45:14 PM	B33120
Lead	0.00059	0.00053	0.010	J	mg/L	20	3/28/2016 7:51:21 PM	B33120
Selenium	0.020	0.0039	0.020	J	mg/L	20	3/28/2016 7:51:21 PM	B33120
Uranium	0.0035	0.000096	0.010	J	mg/L	20	3/28/2016 7:51:21 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.023	0.0029	0.010	*	mg/L	10	3/23/2016 5:01:51 PM	24250
Lead	ND	0.00047	0.0050		mg/L	10	3/23/2016 5:01:51 PM	24250
Selenium	0.021	0.0025	0.020		mg/L	20	3/23/2016 4:40:42 PM	24250

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Lab ID: 1603233-004
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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0040	0.000049	0.0050	J	mg/L	10	3/23/2016 5:01:51 PM	24250
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000073	0.000053	0.00020	J	mg/L	1	3/10/2016 11:17:44 AM	24156
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Aniline	ND	9.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/13/2016 11:17:13 PM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 11:17:13 PM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Carbazole	ND	7.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 11:17:13 PM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 11:17:13 PM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 11:17:13 PM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 11:17:13 PM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 11:17:13 PM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121

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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 4
Project: Pond Sampling
Collection Date: 3/2/2016 2:25:00 PM
Lab ID: 1603233-004
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 11:17:13 PM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/13/2016 11:17:13 PM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 11:17:13 PM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 11:17:13 PM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Fluorene	ND	7.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2-Methylphenol	ND	8.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
3+4-Methylphenol	42	7.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 11:17:13 PM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 11:17:13 PM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 11:17:13 PM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Phenol	26	5.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 11:17:13 PM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Surr: 2-Fluorophenol	63.4	0	4.63-113		%Rec	1	3/13/2016 11:17:13 PM	24121
Surr: Phenol-d5	51.5	0	4.13-124		%Rec	1	3/13/2016 11:17:13 PM	24121

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Hall Environmental Analysis Laboratory, Inc.

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Project: Pond Sampling
Collection Date: 3/2/2016 2:25:00 PM
Lab ID: 1603233-004
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	96.6	0	5.14-132		%Rec	1	3/13/2016 11:17:13 PM	24121
Surr: Nitrobenzene-d5	89.9	0	9.13-140		%Rec	1	3/13/2016 11:17:13 PM	24121
Surr: 2-Fluorobiphenyl	74.6	0	10.8-132		%Rec	1	3/13/2016 11:17:13 PM	24121
Surr: 4-Terphenyl-d14	48.4	0	12.9-107		%Rec	1	3/13/2016 11:17:13 PM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.48	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Toluene	ND	0.45	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Naphthalene	ND	0.42	10		µg/L	5	3/10/2016 8:35:02 PM	R32729
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/10/2016 8:35:02 PM	R32729
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/10/2016 8:35:02 PM	R32729
Acetone	20	4.4	50	J	µg/L	5	3/10/2016 8:35:02 PM	R32729
Bromobenzene	ND	0.40	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Bromoform	ND	0.51	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Bromomethane	ND	3.9	15		µg/L	5	3/10/2016 8:35:02 PM	R32729
2-Butanone	2.7	1.6	50	J	µg/L	5	3/10/2016 8:35:02 PM	R32729
Carbon disulfide	23	3.0	50	J	µg/L	5	3/10/2016 8:35:02 PM	R32729
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Chloroethane	ND	0.73	10		µg/L	5	3/10/2016 8:35:02 PM	R32729
Chloroform	ND	0.44	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Chloromethane	ND	1.1	15		µg/L	5	3/10/2016 8:35:02 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/10/2016 8:35:02 PM	R32729
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Dibromomethane	ND	0.60	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 4
Project: Pond Sampling
Collection Date: 3/2/2016 2:25:00 PM
Lab ID: 1603233-004
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
2-Hexanone	ND	1.8	50		µg/L	5	3/10/2016 8:35:02 PM	R32729
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/10/2016 8:35:02 PM	R32729
Methylene Chloride	ND	0.31	15		µg/L	5	3/10/2016 8:35:02 PM	R32729
n-Butylbenzene	ND	0.80	15		µg/L	5	3/10/2016 8:35:02 PM	R32729
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Styrene	ND	0.48	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/10/2016 8:35:02 PM	R32729
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/10/2016 8:35:02 PM	R32729
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/10/2016 8:35:02 PM	R32729
Surr: 1,2-Dichloroethane-d4	89.7	0	70-130		%Rec	5	3/10/2016 8:35:02 PM	R32729
Surr: 4-Bromofluorobenzene	97.4	0	70-130		%Rec	5	3/10/2016 8:35:02 PM	R32729
Surr: Dibromofluoromethane	108	0	70-130		%Rec	5	3/10/2016 8:35:02 PM	R32729
Surr: Toluene-d8	101	0	70-130		%Rec	5	3/10/2016 8:35:02 PM	R32729
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	31000	0.10	0.10		µmhos/c	10	3/8/2016 7:34:00 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 4
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Collection Date: 3/2/2016 2:25:00 PM
Lab ID: 1603233-004
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.76	0.100	1.68	H	pH units	1	3/7/2016 7:32:43 PM	R32629

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7
Project: Pond Sampling
Collection Date: 3/2/2016 3:25:00 PM
Lab ID: 1603233-005
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	20	1.1	5.0	*	mg/L	50	3/15/2016 2:33:29 PM	R32822
Chloride	49000	140	2500		mg/L	5000	3/17/2016 9:53:04 AM	A32854
Bromide	25	3.2	10		mg/L	100	3/17/2016 9:15:51 AM	A32854
Phosphorus, Orthophosphate (As P)	ND	4.4	10		mg/L	20	3/4/2016 2:52:25 PM	R32615
Sulfate	12000	130	1000		mg/L	2000	3/15/2016 2:45:54 PM	R32822
Nitrate+Nitrite as N	ND	17	40		mg/L	200	3/17/2016 10:30:17 AM	A32854
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.18	0.0066	0.010		mg/L	5	3/18/2016 5:35:52 PM	C32891
Cadmium	ND	0.0037	0.010		mg/L	5	3/18/2016 5:35:52 PM	C32891
Calcium	860	5.1	20		mg/L	20	3/23/2016 4:52:56 PM	C33001
Chromium	0.0090	0.0088	0.030	J	mg/L	5	3/18/2016 5:35:52 PM	C32891
Copper	ND	0.020	0.030		mg/L	5	3/18/2016 5:35:52 PM	C32891
Iron	0.52	0.045	0.10	*	mg/L	5	3/18/2016 5:35:52 PM	C32891
Magnesium	900	0.26	20		mg/L	20	3/23/2016 4:52:56 PM	C33001
Manganese	0.42	0.0016	0.010	*	mg/L	5	3/18/2016 5:35:52 PM	C32891
Potassium	1200	3.5	20		mg/L	20	3/23/2016 4:52:56 PM	C33001
Silver	ND	0.014	0.025		mg/L	5	3/18/2016 5:35:52 PM	C32891
Sodium	24000	48	500		mg/L	500	3/23/2016 4:54:59 PM	C33001
Zinc	0.020	0.014	0.050	J	mg/L	5	3/18/2016 5:35:52 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.20	0.0053	0.010		mg/L	5	3/21/2016 1:28:56 PM	24150
Cadmium	ND	0.0031	0.010		mg/L	5	3/21/2016 1:28:56 PM	24150
Chromium	0.012	0.011	0.030	J	mg/L	5	3/21/2016 1:28:56 PM	24150
Copper	ND	0.026	0.030		mg/L	5	3/21/2016 1:28:56 PM	24150
Iron	2.0	0.036	0.10	*	mg/L	5	3/21/2016 1:28:56 PM	24150
Manganese	0.61	0.0076	0.010	*	mg/L	5	3/21/2016 1:28:56 PM	24150
Silver	ND	0.011	0.025		mg/L	5	3/21/2016 1:28:56 PM	24150
Zinc	0.023	0.019	0.050	J	mg/L	5	3/21/2016 1:28:56 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.078	0.0032	0.050	*	mg/L	50	3/28/2016 7:57:28 PM	B33120
Lead	0.0016	0.0013	0.025	J	mg/L	50	3/28/2016 7:57:28 PM	B33120
Selenium	0.066	0.019	0.10	J*	mg/L	100	3/29/2016 5:15:09 PM	B33154
Uranium	0.0060	0.00024	0.025	J	mg/L	50	3/28/2016 7:57:28 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.069	0.029	0.10	J*	mg/L	100	3/23/2016 5:04:52 PM	24250
Lead	ND	0.0024	0.025		mg/L	50	3/23/2016 4:46:43 PM	24250
Selenium	0.071	0.012	0.10	J*	mg/L	100	3/23/2016 5:04:52 PM	24250

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Lab ID: 1603233-005
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0059	0.00025	0.025	J	mg/L	50	3/23/2016 4:46:43 PM	24250
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000092	0.000053	0.00020	J	mg/L	1	3/10/2016 11:19:44 AM	24156
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Aniline	ND	9.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/13/2016 11:46:39 PM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 11:46:39 PM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Carbazole	ND	7.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 11:46:39 PM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 11:46:39 PM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 11:46:39 PM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 11:46:39 PM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 11:46:39 PM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121

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Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7
Project: Pond Sampling
Collection Date: 3/2/2016 3:25:00 PM
Lab ID: 1603233-005
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 11:46:39 PM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/13/2016 11:46:39 PM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 11:46:39 PM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 11:46:39 PM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Fluorene	ND	7.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2-Methylphenol	ND	8.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 11:46:39 PM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 11:46:39 PM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 11:46:39 PM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Phenol	ND	5.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 11:46:39 PM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Surr: 2-Fluorophenol	68.8	0	4.63-113		%Rec	1	3/13/2016 11:46:39 PM	24121
Surr: Phenol-d5	60.1	0	4.13-124		%Rec	1	3/13/2016 11:46:39 PM	24121

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7
Project: Pond Sampling
Collection Date: 3/2/2016 3:25:00 PM
Lab ID: 1603233-005
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	84.6	0	5.14-132		%Rec	1	3/13/2016 11:46:39 PM	24121
Surr: Nitrobenzene-d5	88.7	0	9.13-140		%Rec	1	3/13/2016 11:46:39 PM	24121
Surr: 2-Fluorobiphenyl	74.5	0	10.8-132		%Rec	1	3/13/2016 11:46:39 PM	24121
Surr: 4-Terphenyl-d14	43.2	0	12.9-107		%Rec	1	3/13/2016 11:46:39 PM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.48	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Toluene	ND	0.45	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Naphthalene	ND	0.42	10		µg/L	5	3/10/2016 9:03:55 PM	R32729
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/10/2016 9:03:55 PM	R32729
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/10/2016 9:03:55 PM	R32729
Acetone	18	4.4	50	J	µg/L	5	3/10/2016 9:03:55 PM	R32729
Bromobenzene	ND	0.40	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Bromoform	ND	0.51	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Bromomethane	ND	3.9	15		µg/L	5	3/10/2016 9:03:55 PM	R32729
2-Butanone	ND	1.6	50		µg/L	5	3/10/2016 9:03:55 PM	R32729
Carbon disulfide	ND	3.0	50		µg/L	5	3/10/2016 9:03:55 PM	R32729
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Chloroethane	ND	0.73	10		µg/L	5	3/10/2016 9:03:55 PM	R32729
Chloroform	ND	0.44	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Chloromethane	6.3	1.1	15	J	µg/L	5	3/10/2016 9:03:55 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/10/2016 9:03:55 PM	R32729
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Dibromomethane	ND	0.60	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7
Project: Pond Sampling
Collection Date: 3/2/2016 3:25:00 PM
Lab ID: 1603233-005
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
2-Hexanone	ND	1.8	50		µg/L	5	3/10/2016 9:03:55 PM	R32729
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/10/2016 9:03:55 PM	R32729
Methylene Chloride	ND	0.31	15		µg/L	5	3/10/2016 9:03:55 PM	R32729
n-Butylbenzene	ND	0.80	15		µg/L	5	3/10/2016 9:03:55 PM	R32729
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Styrene	ND	0.48	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/10/2016 9:03:55 PM	R32729
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/10/2016 9:03:55 PM	R32729
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/10/2016 9:03:55 PM	R32729
Surr: 1,2-Dichloroethane-d4	97.2	0	70-130		%Rec	5	3/10/2016 9:03:55 PM	R32729
Surr: 4-Bromofluorobenzene	105	0	70-130		%Rec	5	3/10/2016 9:03:55 PM	R32729
Surr: Dibromofluoromethane	111	0	70-130		%Rec	5	3/10/2016 9:03:55 PM	R32729
Surr: Toluene-d8	103	0	70-130		%Rec	5	3/10/2016 9:03:55 PM	R32729
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	130000	0.50	0.50		µmhos/c	50	3/8/2016 7:38:14 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7
Project: Pond Sampling
Collection Date: 3/2/2016 3:25:00 PM
Lab ID: 1603233-005
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.88	0.100	1.68	H	pH units	1	3/7/2016 7:37:05 PM	R32629

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Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 11
Project: Pond Sampling
Collection Date: 3/2/2016 3:45:00 PM
Lab ID: 1603233-006
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	29	2.3	10	*	mg/L	100	3/4/2016 3:17:14 PM	R32615
Chloride	50000	140	2500		mg/L	5000	3/17/2016 10:05:28 AM	A32854
Bromide	21	3.2	10		mg/L	100	3/4/2016 3:17:14 PM	R32615
Phosphorus, Orthophosphate (As P)	ND	22	50		mg/L	100	3/4/2016 3:17:14 PM	R32615
Sulfate	11000	64	500		mg/L	1000	3/15/2016 8:21:03 PM	R32822
Nitrate+Nitrite as N	ND	17	40		mg/L	200	3/17/2016 10:42:41 AM	A32854
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.20	0.0066	0.010		mg/L	5	3/18/2016 5:39:36 PM	C32891
Cadmium	ND	0.0037	0.010		mg/L	5	3/18/2016 5:39:36 PM	C32891
Calcium	850	5.1	20		mg/L	20	3/23/2016 5:02:19 PM	C33001
Chromium	ND	0.0088	0.030		mg/L	5	3/18/2016 5:39:36 PM	C32891
Copper	ND	0.020	0.030		mg/L	5	3/18/2016 5:39:36 PM	C32891
Iron	0.22	0.045	0.10		mg/L	5	3/18/2016 5:39:36 PM	C32891
Magnesium	870	0.26	20		mg/L	20	3/23/2016 5:02:19 PM	C33001
Manganese	0.42	0.0016	0.010	*	mg/L	5	3/18/2016 5:39:36 PM	C32891
Potassium	1100	3.5	20		mg/L	20	3/23/2016 5:02:19 PM	C33001
Silver	ND	0.014	0.025		mg/L	5	3/18/2016 5:39:36 PM	C32891
Sodium	23000	48	500		mg/L	500	3/23/2016 5:04:24 PM	C33001
Zinc	0.028	0.014	0.050	J	mg/L	5	3/18/2016 5:39:36 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.19	0.0053	0.010		mg/L	5	3/21/2016 1:32:36 PM	24150
Cadmium	ND	0.0031	0.010		mg/L	5	3/21/2016 1:32:36 PM	24150
Chromium	ND	0.011	0.030		mg/L	5	3/21/2016 1:32:36 PM	24150
Copper	ND	0.026	0.030		mg/L	5	3/21/2016 1:32:36 PM	24150
Iron	2.9	0.036	0.10	*	mg/L	5	3/21/2016 1:32:36 PM	24150
Manganese	0.55	0.0076	0.010	*	mg/L	5	3/21/2016 1:32:36 PM	24150
Silver	ND	0.011	0.025		mg/L	5	3/21/2016 1:32:36 PM	24150
Zinc	0.021	0.019	0.050	J	mg/L	5	3/21/2016 1:32:36 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.076	0.0032	0.050	*	mg/L	50	3/29/2016 5:21:16 PM	B33154
Lead	0.0023	0.0013	0.025	J	mg/L	50	3/29/2016 5:21:16 PM	B33154
Selenium	0.088	0.019	0.10	J*	mg/L	100	3/31/2016 2:26:45 PM	B33223
Uranium	0.0057	0.00024	0.025	J	mg/L	50	3/29/2016 5:21:16 PM	B33154
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.086	0.015	0.050	*	mg/L	50	3/23/2016 5:07:53 PM	24250
Lead	ND	0.0024	0.025		mg/L	50	3/23/2016 5:07:53 PM	24250
Selenium	0.075	0.012	0.10	J*	mg/L	100	3/23/2016 5:19:56 PM	24250

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Hall Environmental Analysis Laboratory, Inc.

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Client Sample ID: Pond 11
Project: Pond Sampling
Collection Date: 3/2/2016 3:45:00 PM
Lab ID: 1603233-006
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0066	0.00025	0.025	J	mg/L	50	3/23/2016 5:07:53 PM	24250
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000077	0.000053	0.00020	J	mg/L	1	3/10/2016 11:21:44 AM	24156
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Aniline	ND	9.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Anthracene	ND	6.6	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/14/2016 12:15:58 AM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/14/2016 12:15:58 AM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Carbazole	ND	7.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/14/2016 12:15:58 AM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/14/2016 12:15:58 AM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Chrysene	ND	6.6	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/14/2016 12:15:58 AM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/14/2016 12:15:58 AM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/14/2016 12:15:58 AM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/14/2016 12:15:58 AM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/14/2016 12:15:58 AM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/14/2016 12:15:58 AM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/14/2016 12:15:58 AM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Fluorene	ND	7.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Isophorone	ND	8.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2-Methylphenol	ND	8.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/14/2016 12:15:58 AM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/14/2016 12:15:58 AM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/14/2016 12:15:58 AM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Phenol	ND	5.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Pyrene	ND	5.5	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Pyridine	ND	6.7	10		µg/L	1	3/14/2016 12:15:58 AM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Surr: 2-Fluorophenol	37.8	0	4.63-113		%Rec	1	3/14/2016 12:15:58 AM	24121
Surr: Phenol-d5	47.5	0	4.13-124		%Rec	1	3/14/2016 12:15:58 AM	24121

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	60.6	0	5.14-132		%Rec	1	3/14/2016 12:15:58 AM	24121
Surr: Nitrobenzene-d5	57.9	0	9.13-140		%Rec	1	3/14/2016 12:15:58 AM	24121
Surr: 2-Fluorobiphenyl	53.2	0	10.8-132		%Rec	1	3/14/2016 12:15:58 AM	24121
Surr: 4-Terphenyl-d14	35.8	0	12.9-107		%Rec	1	3/14/2016 12:15:58 AM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.48	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Toluene	ND	0.45	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Naphthalene	ND	0.42	10		µg/L	5	3/10/2016 9:32:43 PM	R32729
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/10/2016 9:32:43 PM	R32729
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/10/2016 9:32:43 PM	R32729
Acetone	12	4.4	50	J	µg/L	5	3/10/2016 9:32:43 PM	R32729
Bromobenzene	ND	0.40	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Bromoform	ND	0.51	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Bromomethane	ND	3.9	15		µg/L	5	3/10/2016 9:32:43 PM	R32729
2-Butanone	2.0	1.6	50	J	µg/L	5	3/10/2016 9:32:43 PM	R32729
Carbon disulfide	ND	3.0	50		µg/L	5	3/10/2016 9:32:43 PM	R32729
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Chloroethane	ND	0.73	10		µg/L	5	3/10/2016 9:32:43 PM	R32729
Chloroform	ND	0.44	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Chloromethane	6.5	1.1	15	J	µg/L	5	3/10/2016 9:32:43 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/10/2016 9:32:43 PM	R32729
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Dibromomethane	ND	0.60	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
2-Hexanone	ND	1.8	50		µg/L	5	3/10/2016 9:32:43 PM	R32729
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/10/2016 9:32:43 PM	R32729
Methylene Chloride	ND	0.31	15		µg/L	5	3/10/2016 9:32:43 PM	R32729
n-Butylbenzene	ND	0.80	15		µg/L	5	3/10/2016 9:32:43 PM	R32729
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Styrene	ND	0.48	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/10/2016 9:32:43 PM	R32729
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/10/2016 9:32:43 PM	R32729
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/10/2016 9:32:43 PM	R32729
Surr: 1,2-Dichloroethane-d4	92.5	0	70-130		%Rec	5	3/10/2016 9:32:43 PM	R32729
Surr: 4-Bromofluorobenzene	99.5	0	70-130		%Rec	5	3/10/2016 9:32:43 PM	R32729
Surr: Dibromofluoromethane	108	0	70-130		%Rec	5	3/10/2016 9:32:43 PM	R32729
Surr: Toluene-d8	112	0	70-130		%Rec	5	3/10/2016 9:32:43 PM	R32729
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	130000	0.50	0.50		µmhos/c	50	3/8/2016 7:42:20 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.88	0.100	1.68	H	pH units	1	3/7/2016 7:41:26 PM	R32629

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12A
Project: Pond Sampling
Collection Date: 3/2/2016 4:05:00 PM
Lab ID: 1603233-007
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	24	0.23	1.0	*	mg/L	10	3/4/2016 3:29:39 PM	R32615
Chloride	6500	14	250		mg/L	500	3/17/2016 10:17:53 AM	A32854
Bromide	5.2	0.32	1.0		mg/L	10	3/4/2016 3:29:39 PM	R32615
Phosphorus, Orthophosphate (As P)	ND	2.2	5.0		mg/L	10	3/4/2016 3:29:39 PM	R32615
Sulfate	1600	6.4	50		mg/L	100	3/4/2016 3:42:03 PM	R32615
Nitrate+Nitrite as N	ND	4.2	10		mg/L	50	3/15/2016 4:12:47 PM	R32822
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.14	0.0013	0.0020		mg/L	1	3/18/2016 5:41:24 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 5:41:24 PM	C32891
Calcium	380	1.3	5.0		mg/L	5	3/18/2016 5:43:17 PM	C32891
Chromium	0.0098	0.0018	0.0060		mg/L	1	3/18/2016 5:41:24 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/18/2016 5:41:24 PM	C32891
Iron	0.79	0.0091	0.020	*	mg/L	1	3/18/2016 5:41:24 PM	C32891
Magnesium	150	0.065	5.0		mg/L	5	3/18/2016 5:43:17 PM	C32891
Manganese	0.39	0.00032	0.0020	*	mg/L	1	3/18/2016 5:41:24 PM	C32891
Potassium	180	0.89	5.0		mg/L	5	3/18/2016 5:43:17 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 5:41:24 PM	C32891
Sodium	4000	4.8	50		mg/L	50	3/23/2016 5:06:09 PM	C33001
Zinc	0.018	0.0028	0.010		mg/L	1	3/18/2016 5:41:24 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.16	0.0011	0.0020		mg/L	1	3/18/2016 4:22:09 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 4:22:09 PM	24150
Chromium	0.011	0.0022	0.0060		mg/L	1	3/18/2016 4:22:09 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 4:22:09 PM	24150
Iron	2.3	0.036	0.10	*	mg/L	5	3/21/2016 1:44:28 PM	24150
Manganese	0.39	0.0015	0.0020	*	mg/L	1	3/18/2016 4:22:09 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 4:22:09 PM	24150
Zinc	0.015	0.0039	0.010		mg/L	1	3/18/2016 4:22:09 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.019	0.00032	0.0050	*	mg/L	5	3/29/2016 5:24:19 PM	B33154
Lead	0.0011	0.00053	0.010	J	mg/L	20	3/29/2016 5:27:23 PM	B33154
Selenium	0.031	0.0097	0.050	J	mg/L	50	3/31/2016 2:29:48 PM	B33223
Uranium	0.0035	0.000096	0.010	J	mg/L	20	3/29/2016 5:27:23 PM	B33154
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.021	0.0029	0.010	*	mg/L	10	3/23/2016 5:10:53 PM	24250
Lead	ND	0.0024	0.025		mg/L	50	3/23/2016 5:13:54 PM	24250
Selenium	0.022	0.0062	0.050	J	mg/L	50	3/23/2016 5:13:54 PM	24250

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Hall Environmental Analysis Laboratory, Inc.

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Client Sample ID: Pond 12A
Project: Pond Sampling
Collection Date: 3/2/2016 4:05:00 PM
Lab ID: 1603233-007
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0041	0.00025	0.025	J	mg/L	50	3/23/2016 5:13:54 PM	24250
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/10/2016 11:23:45 AM	24156
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Aniline	ND	9.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Anthracene	ND	6.6	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/14/2016 12:45:47 AM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/14/2016 12:45:47 AM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Carbazole	ND	7.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/14/2016 12:45:47 AM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/14/2016 12:45:47 AM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Chrysene	ND	6.6	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/14/2016 12:45:47 AM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/14/2016 12:45:47 AM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/14/2016 12:45:47 AM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121

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Collection Date: 3/2/2016 4:05:00 PM
Lab ID: 1603233-007
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/14/2016 12:45:47 AM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/14/2016 12:45:47 AM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/14/2016 12:45:47 AM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/14/2016 12:45:47 AM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Fluorene	ND	7.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Isophorone	ND	8.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2-Methylphenol	ND	8.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/14/2016 12:45:47 AM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/14/2016 12:45:47 AM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/14/2016 12:45:47 AM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Phenol	ND	5.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Pyrene	ND	5.5	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Pyridine	ND	6.7	10		µg/L	1	3/14/2016 12:45:47 AM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Surr: 2-Fluorophenol	62.8	0	4.63-113		%Rec	1	3/14/2016 12:45:47 AM	24121
Surr: Phenol-d5	52.1	0	4.13-124		%Rec	1	3/14/2016 12:45:47 AM	24121

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Lab ID: 1603233-007
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	93.2	0	5.14-132		%Rec	1	3/14/2016 12:45:47 AM	24121
Surr: Nitrobenzene-d5	83.6	0	9.13-140		%Rec	1	3/14/2016 12:45:47 AM	24121
Surr: 2-Fluorobiphenyl	75.8	0	10.8-132		%Rec	1	3/14/2016 12:45:47 AM	24121
Surr: 4-Terphenyl-d14	53.2	0	12.9-107		%Rec	1	3/14/2016 12:45:47 AM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.48	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Toluene	ND	0.45	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Naphthalene	ND	0.42	10		µg/L	5	3/10/2016 10:01:28 PM	R32729
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/10/2016 10:01:28 PM	R32729
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/10/2016 10:01:28 PM	R32729
Acetone	6.5	4.4	50	J	µg/L	5	3/10/2016 10:01:28 PM	R32729
Bromobenzene	ND	0.40	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Bromoform	ND	0.51	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Bromomethane	40	3.9	15		µg/L	5	3/10/2016 10:01:28 PM	R32729
2-Butanone	2.4	1.6	50	J	µg/L	5	3/10/2016 10:01:28 PM	R32729
Carbon disulfide	55	3.0	50		µg/L	5	3/10/2016 10:01:28 PM	R32729
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Chloroethane	ND	0.73	10		µg/L	5	3/10/2016 10:01:28 PM	R32729
Chloroform	ND	0.44	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Chloromethane	ND	1.1	15		µg/L	5	3/10/2016 10:01:28 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/10/2016 10:01:28 PM	R32729
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Dibromomethane	ND	0.60	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
2-Hexanone	ND	1.8	50		µg/L	5	3/10/2016 10:01:28 PM	R32729
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/10/2016 10:01:28 PM	R32729
Methylene Chloride	ND	0.31	15		µg/L	5	3/10/2016 10:01:28 PM	R32729
n-Butylbenzene	ND	0.80	15		µg/L	5	3/10/2016 10:01:28 PM	R32729
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Styrene	ND	0.48	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/10/2016 10:01:28 PM	R32729
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/10/2016 10:01:28 PM	R32729
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/10/2016 10:01:28 PM	R32729
Surr: 1,2-Dichloroethane-d4	97.4	0	70-130		%Rec	5	3/10/2016 10:01:28 PM	R32729
Surr: 4-Bromofluorobenzene	99.9	0	70-130		%Rec	5	3/10/2016 10:01:28 PM	R32729
Surr: Dibromofluoromethane	119	0	70-130		%Rec	5	3/10/2016 10:01:28 PM	R32729
Surr: Toluene-d8	105	0	70-130		%Rec	5	3/10/2016 10:01:28 PM	R32729
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	23000	0.10	0.10		µmhos/c	10	3/8/2016 7:46:25 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	

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Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12A
Project: Pond Sampling
Collection Date: 3/2/2016 4:05:00 PM
Lab ID: 1603233-007
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.95	0.100	1.68	H	pH units	1	3/7/2016 7:45:46 PM	R32629

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12B
Project: Pond Sampling
Collection Date: 3/2/2016 4:25:00 PM
Lab ID: 1603233-008
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	34	0.45	2.0	*	mg/L	20	3/4/2016 4:06:53 PM	R32615
Chloride	4200	14	250		mg/L	500	3/15/2016 8:45:52 PM	R32822
Bromide	4.2	0.16	0.50		mg/L	5	3/4/2016 3:54:28 PM	R32615
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5		mg/L	5	3/4/2016 3:54:28 PM	R32615
Sulfate	1200	32	250		mg/L	500	3/15/2016 8:45:52 PM	R32822
Nitrate+Nitrite as N	ND	4.2	10		mg/L	50	3/15/2016 5:02:27 PM	R32822
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.16	0.0013	0.0020		mg/L	1	3/18/2016 5:45:25 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 5:45:25 PM	C32891
Calcium	400	1.3	5.0		mg/L	5	3/18/2016 5:47:20 PM	C32891
Chromium	0.0087	0.0018	0.0060		mg/L	1	3/18/2016 5:45:25 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/18/2016 5:45:25 PM	C32891
Iron	1.1	0.045	0.10	*	mg/L	5	3/18/2016 5:47:20 PM	C32891
Magnesium	110	0.065	5.0		mg/L	5	3/18/2016 5:47:20 PM	C32891
Manganese	0.30	0.00032	0.0020	*	mg/L	1	3/18/2016 5:45:25 PM	C32891
Potassium	130	0.89	5.0		mg/L	5	3/18/2016 5:47:20 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 5:45:25 PM	C32891
Sodium	2800	4.8	50		mg/L	50	3/23/2016 5:08:01 PM	C33001
Zinc	0.016	0.0028	0.010		mg/L	1	3/18/2016 5:45:25 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.20	0.0011	0.0020		mg/L	1	3/18/2016 4:23:48 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 4:23:48 PM	24150
Chromium	0.014	0.0022	0.0060		mg/L	1	3/18/2016 4:23:48 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 4:23:48 PM	24150
Iron	3.7	0.036	0.10	*	mg/L	5	3/21/2016 1:46:30 PM	24150
Manganese	0.38	0.0015	0.0020	*	mg/L	1	3/18/2016 4:23:48 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 4:23:48 PM	24150
Zinc	0.025	0.0039	0.010		mg/L	1	3/18/2016 4:23:48 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.013	0.00032	0.0050	*	mg/L	5	3/29/2016 5:30:26 PM	B33154
Lead	0.0012	0.00013	0.0025	J	mg/L	5	3/29/2016 5:30:26 PM	B33154
Selenium	0.020	0.0097	0.050	J	mg/L	50	3/31/2016 2:32:51 PM	B33223
Uranium	0.0041	0.000024	0.0025		mg/L	5	3/29/2016 5:30:26 PM	B33154
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.013	0.0029	0.010	*	mg/L	10	3/23/2016 5:16:54 PM	24250
Lead	0.0035	0.00047	0.0050	J	mg/L	10	3/23/2016 5:16:54 PM	24250
Selenium	0.024	0.0062	0.050	J	mg/L	50	3/23/2016 5:29:22 PM	24250

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12B
Project: Pond Sampling
Collection Date: 3/2/2016 4:25:00 PM
Lab ID: 1603233-008
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0047	0.000049	0.0050	J	mg/L	10	3/23/2016 5:16:54 PM	24250
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000054	0.000053	0.00020	J	mg/L	1	3/10/2016 11:25:46 AM	24156
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Aniline	ND	9.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Anthracene	ND	6.6	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/16/2016 10:58:24 AM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/16/2016 10:58:24 AM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Carbazole	ND	7.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/16/2016 10:58:24 AM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/16/2016 10:58:24 AM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Chrysene	ND	6.6	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/16/2016 10:58:24 AM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/16/2016 10:58:24 AM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/16/2016 10:58:24 AM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12B
Project: Pond Sampling
Collection Date: 3/2/2016 4:25:00 PM
Lab ID: 1603233-008
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/16/2016 10:58:24 AM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/16/2016 10:58:24 AM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/16/2016 10:58:24 AM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/16/2016 10:58:24 AM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Fluorene	ND	7.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Isophorone	ND	8.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2-Methylphenol	9.7	8.2	10	J	µg/L	1	3/16/2016 10:58:24 AM	24121
3+4-Methylphenol	53	7.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/16/2016 10:58:24 AM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/16/2016 10:58:24 AM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/16/2016 10:58:24 AM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Phenol	55	5.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Pyrene	ND	5.5	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Pyridine	ND	6.7	10		µg/L	1	3/16/2016 10:58:24 AM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Surr: 2-Fluorophenol	47.5	0	15-123		%Rec	1	3/16/2016 10:58:24 AM	24121
Surr: Phenol-d5	40.9	0	4.13-124		%Rec	1	3/16/2016 10:58:24 AM	24121

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12B
Project: Pond Sampling
Collection Date: 3/2/2016 4:25:00 PM
Lab ID: 1603233-008
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	74.3	0	18.4-134		%Rec	1	3/16/2016 10:58:24 AM	24121
Surr: Nitrobenzene-d5	72.7	0	28.8-134		%Rec	1	3/16/2016 10:58:24 AM	24121
Surr: 2-Fluorobiphenyl	66.0	0	35.9-125		%Rec	1	3/16/2016 10:58:24 AM	24121
Surr: 4-Terphenyl-d14	46.0	0	15-146		%Rec	1	3/16/2016 10:58:24 AM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	1.2	0.48	5.0	J	µg/L	5	3/10/2016 10:30:18 PM	R32729
Toluene	1.7	0.45	5.0	J	µg/L	5	3/10/2016 10:30:18 PM	R32729
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Naphthalene	ND	0.42	10		µg/L	5	3/10/2016 10:30:18 PM	R32729
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/10/2016 10:30:18 PM	R32729
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/10/2016 10:30:18 PM	R32729
Acetone	31	4.4	50	J	µg/L	5	3/10/2016 10:30:18 PM	R32729
Bromobenzene	ND	0.40	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Bromoform	ND	0.51	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Bromomethane	38	3.9	15		µg/L	5	3/10/2016 10:30:18 PM	R32729
2-Butanone	3.1	1.6	50	J	µg/L	5	3/10/2016 10:30:18 PM	R32729
Carbon disulfide	63	3.0	50		µg/L	5	3/10/2016 10:30:18 PM	R32729
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Chloroethane	ND	0.73	10		µg/L	5	3/10/2016 10:30:18 PM	R32729
Chloroform	ND	0.44	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Chloromethane	1.6	1.1	15	J	µg/L	5	3/10/2016 10:30:18 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/10/2016 10:30:18 PM	R32729
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Dibromomethane	ND	0.60	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12B
Project: Pond Sampling
Collection Date: 3/2/2016 4:25:00 PM
Lab ID: 1603233-008
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
2-Hexanone	ND	1.8	50		µg/L	5	3/10/2016 10:30:18 PM	R32729
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/10/2016 10:30:18 PM	R32729
Methylene Chloride	ND	0.31	15		µg/L	5	3/10/2016 10:30:18 PM	R32729
n-Butylbenzene	ND	0.80	15		µg/L	5	3/10/2016 10:30:18 PM	R32729
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Styrene	ND	0.48	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/10/2016 10:30:18 PM	R32729
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/10/2016 10:30:18 PM	R32729
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/10/2016 10:30:18 PM	R32729
Surr: 1,2-Dichloroethane-d4	93.6	0	70-130		%Rec	5	3/10/2016 10:30:18 PM	R32729
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	5	3/10/2016 10:30:18 PM	R32729
Surr: Dibromofluoromethane	112	0	70-130		%Rec	5	3/10/2016 10:30:18 PM	R32729
Surr: Toluene-d8	105	0	70-130		%Rec	5	3/10/2016 10:30:18 PM	R32729
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	18000	0.10	0.10		µmhos/c	10	3/8/2016 7:50:33 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	

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Hall Environmental Analysis Laboratory, Inc.

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Client Sample ID: Pond 12B
Project: Pond Sampling
Collection Date: 3/2/2016 4:25:00 PM
Lab ID: 1603233-008
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.86	0.100	1.68	H	pH units	1	3/7/2016 7:49:57 PM	R32629

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Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: Pond Sampling
Collection Date:
Lab ID: 1603233-009
Matrix: TRIP BLANK
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.48	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Toluene	ND	0.45	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Naphthalene	ND	0.42	10		µg/L	5	3/10/2016 10:59:03 PM	R32729
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/10/2016 10:59:03 PM	R32729
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/10/2016 10:59:03 PM	R32729
Acetone	ND	4.4	50		µg/L	5	3/10/2016 10:59:03 PM	R32729
Bromobenzene	ND	0.40	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Bromoform	ND	0.51	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Bromomethane	16	3.9	15		µg/L	5	3/10/2016 10:59:03 PM	R32729
2-Butanone	ND	1.6	50		µg/L	5	3/10/2016 10:59:03 PM	R32729
Carbon disulfide	ND	3.0	50		µg/L	5	3/10/2016 10:59:03 PM	R32729
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Chloroethane	ND	0.73	10		µg/L	5	3/10/2016 10:59:03 PM	R32729
Chloroform	ND	0.44	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Chloromethane	ND	1.1	15		µg/L	5	3/10/2016 10:59:03 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/10/2016 10:59:03 PM	R32729
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Dibromomethane	ND	0.60	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/10/2016 10:59:03 PM	R32729

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: Pond Sampling
Collection Date:
Lab ID: 1603233-009
Matrix: TRIP BLANK
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
2-Hexanone	ND	1.8	50		µg/L	5	3/10/2016 10:59:03 PM	R32729
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/10/2016 10:59:03 PM	R32729
Methylene Chloride	ND	0.31	15		µg/L	5	3/10/2016 10:59:03 PM	R32729
n-Butylbenzene	ND	0.80	15		µg/L	5	3/10/2016 10:59:03 PM	R32729
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Styrene	ND	0.48	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/10/2016 10:59:03 PM	R32729
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/10/2016 10:59:03 PM	R32729
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/10/2016 10:59:03 PM	R32729
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	5	3/10/2016 10:59:03 PM	R32729
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	5	3/10/2016 10:59:03 PM	R32729
Surr: Dibromofluoromethane	121	0	70-130		%Rec	5	3/10/2016 10:59:03 PM	R32729
Surr: Toluene-d8	103	0	70-130		%Rec	5	3/10/2016 10:59:03 PM	R32729

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

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup
Project: Pond Sampling

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008301** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008302** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.1	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Calcium	50	1.0	50.00	0	99.6	85	115			
Chromium	0.49	0.0060	0.5000	0	97.0	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.49	0.020	0.5000	0	98.4	85	115			
Magnesium	51	1.0	50.00	0	102	85	115			
Manganese	0.49	0.0020	0.5000	0	97.8	85	115			
Potassium	50	1.0	50.00	0	99.4	85	115			
Zinc	0.48	0.010	0.5000	0	96.3	85	115			

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

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

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup
Project: Pond Sampling

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

Sample ID	**LCS-C**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID:	**C32891**	RunNo:	**32891**					
Prep Date:		Analysis Date:	**3/18/2016**	SeqNo:	**1008305**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	101	85	115			

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

Sample ID	**LCS-C**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID:	**C33001**	RunNo:	**33001**					
Prep Date:		Analysis Date:	**3/23/2016**	SeqNo:	**1012813**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	50	1.0	50.00	0	99.1	85	115			
Magnesium	50	1.0	50.00	0	101	85	115			
Potassium	50	1.0	50.00	0	99.4	85	115			
Sodium	50	1.0	50.00	0	99.6	85	115			

Sample ID	**LLLCS-C**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**C33001**	RunNo:	**33001**					
Prep Date:		Analysis Date:	**3/23/2016**	SeqNo:	**1012814**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.52	1.0	0.5000	0	104	50	150			J
Magnesium	0.54	1.0	0.5000	0	109	50	150			J
Potassium	0.44	1.0	0.5000	0	87.5	50	150			J

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup
Project: Pond Sampling

Sample ID	**MB-24150**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**24150**	RunNo:	**32831**					
Prep Date:	**3/9/2016**	Analysis Date:	**3/16/2016**	SeqNo:	**1006645**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	**LCS-24150**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID:	**24150**	RunNo:	**32831**					
Prep Date:	**3/9/2016**	Analysis Date:	**3/16/2016**	SeqNo:	**1006646**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.4	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	98.4	85	115			
Iron	0.49	0.020	0.5000	0	97.3	85	115			
Manganese	0.49	0.0020	0.5000	0	97.9	85	115			
Silver	0.094	0.0050	0.1000	0	93.7	85	115			
Zinc	0.50	0.010	0.5000	0	99.3	85	115			

Sample ID	**LLLCS-24150**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**24150**	RunNo:	**32831**					
Prep Date:	**3/9/2016**	Analysis Date:	**3/16/2016**	SeqNo:	**1006647**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0016	0.0020	0.002000	0	80.5	50	150			J
Cadmium	0.0019	0.0020	0.002000	0	96.0	50	150			J
Chromium	0.0074	0.0060	0.006000	0	123	50	150			
Iron	0.022	0.020	0.02000	0	110	50	150			
Manganese	0.0019	0.0020	0.002000	0	93.0	50	150			J
Silver	0.0043	0.0050	0.005000	0	86.2	50	150			J
Zinc	0.0061	0.010	0.005000	0	122	50	150			J

Sample ID	**MB-24150**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**24150**	RunNo:	**32891**					
Prep Date:	**3/9/2016**	Analysis Date:	**3/18/2016**	SeqNo:	**1008286**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup
Project: Pond Sampling

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

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

Sample ID	**1603233-001EMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**Pond 3**	Batch ID:	**24150**		RunNo:	**32891**				
Prep Date:	**3/9/2016**	Analysis Date:	**3/18/2016**		SeqNo:	**1008839**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.66	0.0020	0.5000	0.1798	95.5	70	130			
Cadmium	0.52	0.0020	0.5000	0	104	70	130			
Chromium	0.48	0.0060	0.5000	0.009460	94.5	70	130			
Copper	0.60	0.0060	0.5000	0	121	70	130			
Manganese	0.85	0.0020	0.5000	0.3762	95.4	70	130			
Zinc	0.46	0.010	0.5000	0.01494	89.0	70	130			

Sample ID	**1603233-001EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**Pond 3**	Batch ID:	**24150**		RunNo:	**32891**				
Prep Date:	**3/9/2016**	Analysis Date:	**3/18/2016**		SeqNo:	**1008840**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1798	94.6	70	130	0.744	20	
Cadmium	0.52	0.0020	0.5000	0	104	70	130	0.470	20	
Chromium	0.48	0.0060	0.5000	0.009460	94.1	70	130	0.326	20	
Copper	0.61	0.0060	0.5000	0	121	70	130	0.319	20	
Manganese	0.84	0.0020	0.5000	0.3762	93.7	70	130	0.966	20	
Zinc	0.45	0.010	0.5000	0.01494	87.9	70	130	1.19	20	

Sample ID	**1603233-002EMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**Pond 2**	Batch ID:	**24150**		RunNo:	**32891**				
Prep Date:	**3/9/2016**	Analysis Date:	**3/18/2016**		SeqNo:	**1008845**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.61	0.0020	0.5000	0.1349	95.1	70	130			
Cadmium	0.51	0.0020	0.5000	0	103	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup
Project: Pond Sampling

Sample ID	**1603233-002EMS**	SampType: **MS**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**Pond 2**	Batch ID: **24150**		RunNo: **32891**					
Prep Date:	**3/9/2016**	Analysis Date: **3/18/2016**		SeqNo: **1008845**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.47	0.0060	0.5000	0.007250	93.2	70	130			
Copper	0.61	0.0060	0.5000	0	123	70	130			
Manganese	0.69	0.0020	0.5000	0.2160	94.3	70	130			
Silver	0.12	0.0050	0.1000	0	118	70	130			
Zinc	0.44	0.010	0.5000	0.01446	85.8	70	130			

Sample ID	**1603233-002EMSD**	SampType: **MSD**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**Pond 2**	Batch ID: **24150**		RunNo: **32891**					
Prep Date:	**3/9/2016**	Analysis Date: **3/18/2016**		SeqNo: **1008846**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.60	0.0020	0.5000	0.1349	93.4	70	130	1.41	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	0.890	20	
Chromium	0.47	0.0060	0.5000	0.007250	92.6	70	130	0.666	20	
Copper	0.61	0.0060	0.5000	0	121	70	130	1.34	20	
Manganese	0.68	0.0020	0.5000	0.2160	93.5	70	130	0.550	20	
Silver	0.11	0.0050	0.1000	0	115	70	130	2.68	20	
Zinc	0.44	0.010	0.5000	0.01446	84.5	70	130	1.45	20	

Sample ID	**1603233-001EMS**	SampType: **MS**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**Pond 3**	Batch ID: **24150**		RunNo: **32922**					
Prep Date:	**3/9/2016**	Analysis Date: **3/21/2016**		SeqNo: **1010439**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.11	0.0050	0.1000	0	112	70	130			

Sample ID	**1603233-001EMSD**	SampType: **MSD**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**Pond 3**	Batch ID: **24150**		RunNo: **32922**					
Prep Date:	**3/9/2016**	Analysis Date: **3/21/2016**		SeqNo: **1010440**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.11	0.0050	0.1000	0	109	70	130	2.05	20	

Sample ID	**1603233-001EMS**	SampType: **MS**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**Pond 3**	Batch ID: **24150**		RunNo: **32922**					
Prep Date:	**3/9/2016**	Analysis Date: **3/21/2016**		SeqNo: **1010446**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	1.9	0.10	0.5000	1.362	117	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID	**1603233-001EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**Pond 3**	Batch ID:	**24150**		RunNo:	**32922**				
Prep Date:	**3/9/2016**	Analysis Date:	**3/21/2016**		SeqNo:	**1010447**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	1.9	0.10	0.5000	1.362	110	70	130	1.78	20	

Sample ID	**1603233-002EMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**Pond 2**	Batch ID:	**24150**		RunNo:	**32922**				
Prep Date:	**3/9/2016**	Analysis Date:	**3/21/2016**		SeqNo:	**1010449**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	1.5	0.10	0.5000	0.8510	123	70	130			

Sample ID	**1603233-002EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**Pond 2**	Batch ID:	**24150**		RunNo:	**32922**				
Prep Date:	**3/9/2016**	Analysis Date:	**3/21/2016**		SeqNo:	**1010450**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	1.4	0.10	0.5000	0.8510	109	70	130	5.10	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup
Project: Pond Sampling

Sample ID	**1603233-001DMSDL**	SampType:	**MSD**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**Pond 3**	Batch ID:	**B33120**		RunNo:	**33120**				
Prep Date:		Analysis Date:	**3/28/2016**		SeqNo:	**1016733**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.01085	98.1	70	130	1.59	20	
Lead	0.068	0.0025	0.06250	0.0005427	109	70	130	1.25	20	
Uranium	0.081	0.0025	0.06250	0.003722	123	70	130	1.32	20	

Sample ID	**1603233-001DMSLL**	SampType:	**MS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**Pond 3**	Batch ID:	**B33120**		RunNo:	**33120**				
Prep Date:		Analysis Date:	**3/28/2016**		SeqNo:	**1016734**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.01085	96.4	70	130			
Lead	0.068	0.0025	0.06250	0.0005427	107	70	130			
Uranium	0.080	0.0025	0.06250	0.003722	121	70	130			

Sample ID	**1603233-004DMSLL**	SampType:	**MS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**Pond 4**	Batch ID:	**B33120**		RunNo:	**33120**				
Prep Date:		Analysis Date:	**3/28/2016**		SeqNo:	**1016741**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.01901	91.6	70	130			

Sample ID	**LCS**	SampType:	**LCS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**LCSW**	Batch ID:	**B33120**		RunNo:	**33120**				
Prep Date:		Analysis Date:	**3/28/2016**		SeqNo:	**1016767**	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	99.2	85	115			
Lead	0.012	0.00050	0.01250	0	98.4	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			
Uranium	0.012	0.00050	0.01250	0	95.6	85	115			

Sample ID	**LLLCS**	SampType:	**LCSLL**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**BatchQC**	Batch ID:	**B33120**		RunNo:	**33120**				
Prep Date:		Analysis Date:	**3/28/2016**		SeqNo:	**1016769**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	104	50	150			
Lead	0.00052	0.00050	0.0005000	0	104	50	150			
Selenium	0.0011	0.0010	0.001000	0	108	50	150			
Uranium	0.00049	0.00050	0.0005000	0	98.4	50	150			J

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup
Project: Pond Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016771** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	0.000011	0.00050								J

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33154**	RunNo: **33154**
Prep Date:	Analysis Date: **3/29/2016**	SeqNo: **1018089** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.7	85	115			
Lead	0.012	0.00050	0.01250	0	95.4	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.011	0.00050	0.01250	0	91.8	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33154**	RunNo: **33154**
Prep Date:	Analysis Date: **3/29/2016**	SeqNo: **1018090** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00098	0.0010	0.001000	0	98.0	50	150			J
Lead	0.00050	0.00050	0.0005000	0	100	50	150			
Selenium	0.00095	0.0010	0.001000	0	94.9	50	150			J
Uranium	0.00046	0.00050	0.0005000	0	91.1	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33154**	RunNo: **33154**
Prep Date:	Analysis Date: **3/29/2016**	SeqNo: **1018091** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33223**	RunNo: **33223**
Prep Date:	Analysis Date: **3/31/2016**	SeqNo: **1020326** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID	**LCS**	SampType: **LCS**			TestCode: **EPA 200.8: Dissolved Metals**				
Client ID:	**LCSW**	Batch ID: **B33223**			RunNo: **33223**				
Prep Date:		Analysis Date: **3/31/2016**			SeqNo: **1020326**		Units: **mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	102	85	115			

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

Sample ID	**MB**	SampType: **MBLK**			TestCode: **EPA 200.8: Dissolved Metals**				
Client ID:	**PBW**	Batch ID: **B33223**			RunNo: **33223**				
Prep Date:		Analysis Date: **3/31/2016**			SeqNo: **1020328**		Units: **mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup
Project: Pond Sampling

Sample ID	**MB-24250**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**24250**	RunNo:	**32858**					
Prep Date:	**3/15/2016**	Analysis Date:	**3/17/2016**	SeqNo:	**1007536**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-24250**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**24250**	RunNo:	**32858**					
Prep Date:	**3/15/2016**	Analysis Date:	**3/17/2016**	SeqNo:	**1007538**	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			
Lead	0.013	0.00050	0.01250	0	105	85	115			
Selenium	0.027	0.0010	0.02500	0	108	85	115			
Uranium	0.013	0.00050	0.01250	0	105	85	115			

Sample ID	**MSLLLCS-24250**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**24250**	RunNo:	**32858**					
Prep Date:	**3/15/2016**	Analysis Date:	**3/17/2016**	SeqNo:	**1007539**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0012	0.0010	0.001000	0	117	50	150			
Lead	0.00052	0.00050	0.0005000	0	104	50	150			
Selenium	0.0012	0.0010	0.001000	0	116	50	150			
Uranium	0.00052	0.00050	0.0005000	0	104	50	150			

Sample ID	**1603233-002EMSLL**	SampType:	**MSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**Pond 2**	Batch ID:	**24250**	RunNo:	**33009**					
Prep Date:	**3/15/2016**	Analysis Date:	**3/23/2016**	SeqNo:	**1012706**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.036	0.0050	0.02500	0.01086	99.6	70	130			

Sample ID	**1603233-002EMSDL**	SampType:	**MSDLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**Pond 2**	Batch ID:	**24250**	RunNo:	**33009**					
Prep Date:	**3/15/2016**	Analysis Date:	**3/23/2016**	SeqNo:	**1012707**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.036	0.0050	0.02500	0.01086	99.1	70	130	0.340	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID	**MB-24156**	SampType:	**mblk**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**24156**	RunNo:	**32702**					
Prep Date:	**3/9/2016**	Analysis Date:	**3/10/2016**	SeqNo:	**1000942**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000079	0.00020								J

Sample ID	**LCS-24156**	SampType:	**lcs**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**24156**	RunNo:	**32702**					
Prep Date:	**3/9/2016**	Analysis Date:	**3/10/2016**	SeqNo:	**1000945**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.00020	0.005000	0	109	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup
Project: Pond Sampling

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32615**	RunNo: **32615**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997836** 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: **R32615**	RunNo: **32615**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997837** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Bromide	2.5	0.10	2.500	0	100	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.8	90	110			
Sulfate	9.9	0.50	10.00	0	98.8	90	110			

Sample ID **1603233-001CMS**	SampType: **ms**	TestCode: **EPA Method 300.0: Anions**
Client ID: **Pond 3**	Batch ID: **R32615**	RunNo: **32615**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997839** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	22	2.5	25.00	0	86.2	74.2	107			

Sample ID **1603233-001CMSD**	SampType: **msd**	TestCode: **EPA Method 300.0: Anions**
Client ID: **Pond 3**	Batch ID: **R32615**	RunNo: **32615**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997840** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	22	2.5	25.00	0	86.6	74.2	107	0.426	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32663**	RunNo: **32663**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999366** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup
Project: Pond Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32663**	RunNo: **32663**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999367** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32822**	RunNo: **32822**
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1005748** 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								
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: **R32822**	RunNo: **32822**
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1005749** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.7	0.50	5.000	0	93.7	90	110			
Bromide	2.4	0.10	2.500	0	97.3	90	110			
Sulfate	9.6	0.50	10.00	0	96.4	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.9	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A32854**	RunNo: **32854**
Prep Date:	Analysis Date: **3/17/2016**	SeqNo: **1007070** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Bromide	ND	0.10								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A32854**	RunNo: **32854**
Prep Date:	Analysis Date: **3/17/2016**	SeqNo: **1007071** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.5	90	110			
Bromide	2.5	0.10	2.500	0	99.2	90	110			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**
15-Apr-16

Client: Western Refining Southwest, Gallup
Project: Pond Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **A32854**	RunNo: **32854**							
Prep Date:	Analysis Date: **3/17/2016**	SeqNo: **1007071**	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	100	90	110			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32729**	RunNo: **32729**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001574** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	109	70	130			
Toluene	20	1.0	20.00	0	100	70	130			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	107	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			
Surr: Toluene-d8	9.7		10.00		97.2	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32729**	RunNo: **32729**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001575** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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)	0.15	1.0								J
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	0.30	4.0								J
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	0.41	10								J
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32729**	RunNo: **32729**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001575** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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	0.54	3.0								J
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32729**	RunNo: **32729**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001575** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.0	70	130			
Surr: Dibromofluoromethane	12		10.00		120	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Sample ID **1603233-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **Pond 3**	Batch ID: **R32729**	RunNo: **32729**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1001578** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	120	5.0	100.0	0	115	70	130			
Toluene	110	5.0	100.0	0	107	70	130			
Chlorobenzene	110	5.0	100.0	0	108	70	130			
1,1-Dichloroethene	110	5.0	100.0	0	108	70	130			
Trichloroethene (TCE)	100	5.0	100.0	0	101	70	130			
Surr: 1,2-Dichloroethane-d4	49		50.00		97.5	70	130			
Surr: 4-Bromofluorobenzene	48		50.00		95.6	70	130			
Surr: Dibromofluoromethane	55		50.00		111	70	130			
Surr: Toluene-d8	49		50.00		97.6	70	130			

Sample ID **1603233-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **Pond 3**	Batch ID: **R32729**	RunNo: **32729**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1001579** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	110	5.0	100.0	0	106	70	130	8.82	20	
Toluene	110	5.0	100.0	0	109	70	130	1.65	20	
Chlorobenzene	100	5.0	100.0	0	105	70	130	2.88	20	
1,1-Dichloroethene	100	5.0	100.0	0	103	70	130	5.51	20	
Trichloroethene (TCE)	100	5.0	100.0	0	104	70	130	2.77	20	
Surr: 1,2-Dichloroethane-d4	53		50.00		107	70	130	0	0	
Surr: 4-Bromofluorobenzene	47		50.00		94.8	70	130	0	0	
Surr: Dibromofluoromethane	58		50.00		117	70	130	0	0	
Surr: Toluene-d8	56		50.00		111	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **mb-24121**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003941** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **mb-24121**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003941** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	250		200.0		123	4.63	113			S
Surr: Phenol-d5	260		200.0		131	4.13	124			S
Surr: 2,4,6-Tribromophenol	230		200.0		116	5.14	132			
Surr: Nitrobenzene-d5	130		100.0		128	9.13	140			
Surr: 2-Fluorobiphenyl	120		100.0		118	10.8	132			
Surr: 4-Terphenyl-d14	130		100.0		131	12.9	107			S

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1603233 RcptNo: 1

Received by/date: AG 03/03/16

Logged By: Lindsay Mangin 3/3/2016 4:36:00 PM

Completed By: Lindsay Mangin 3/4/2016 8:33:38 AM

Reviewed By: MJ 03/04/16

Chain of Custody

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

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 24 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? NO
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

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

Person Notified: ____ Date: ____

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

Regarding: ____

Client Instructions: ____

17. Additional remarks:

18. **Cooler Information**

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

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client:	WESTERN REFINING SW, INC
	GALLUP REFINERY
Mailing Address:	92 GIANT CROSSING ROAD
	GALLUP, NM 87301
Phone #:	505-722-0231
email or Fax#:	CHERYL.JOHNSON@WNR.COM
QA/QC Package:	Standard / X Level 4 (Full Validation)
Accreditation	NELAP ☐ Other
EDD (Type)	EXCEL

Turn-Around Time:	X Standard ☐ Rush
Project Name:	POND SAMPLING
Project #:	
Project Manager:	CHERYL JOHNSON
Sampler:	TRACY PAYNE
On Ice:	X Yes ☐ No
Sample Temperature:	1.0

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1403233	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	GENCHEM - pH, SPECIFIC CONDUCTANCE, ALKALINITY, ANIONS	WQCC METALS (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
2/16	1445	WATER	POND 3	40 ML VOA-3	HCL	-001										✓						
				1 LITER AMBER-1	NEAT												✓					
				125 ML PLASTIC-1	H_2SO_4													✓				
				125 ML PLASTIC-1	HNO_3													✓	✓			
				500 ML PLASTIC-1	HNO_3														✓			
				500 ML PLASTIC-1	NEAT														✓			
/16	1500	WATER	POND 2	40 ML VOA-3	HCL	-002										✓						
				1 LITER AMBER-1	NEAT												✓					
				125 ML PLASTIC-1	H_2SO_4													✓				
				125 ML PLASTIC-1	HNO_3													✓	✓			
				500 ML PLASTIC-1	HNO_3														✓			
				500 ML PLASTIC	NEAT														✓			

Date: 3/3/16	Time: 0729	Relinquished by:	Received by:	Date: 3/3/16	Time: 805
Date: 3/16	Time: 1636	Relinquished by:	Received by: A M Gallegos	Date: 03/03/16	Time: 1636

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: POND SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
2/16	1408	WATER	POND 5	40 ML VOA-3	HCL	1603233 -003
				1 LITER AMBER-2	NEAT	
				125 ML PLASTIC-1	H_2SO_4	
				125 ML PLASTIC-1	HNO_3	
				500 ML PLASTIC-1	HNO_3	
				500 ML PLASTIC-1	NEAT	
2/16	1425	WATER	POND 4	40 ML VOA-3	HCL	-004
				1 LITER AMBER-2	NEAT	
				125 ML PLASTIC-1	H_2SO_4	
				~~500~~ 125 ML PLASTIC-1	HNO_3	
				500 ML PLASTIC-1	HNO_3	
				500 ML PLASTIC-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	GENCHEM - pH, SPECIFIC CONDUCTANCE, CATIONS/ANIONS, WQCC METALS (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
									✓					
										✓				
											✓			
											✓	✓		
												✓		
												✓		
									✓					
										✓				
											✓			
											✓	✓		
												✓		
												✓		

Date	Time	Relinquished by:	Received by:	Date	Time
2/16	0729			3/3/16	805
3/4/16	1636			03/03/16	1636

Remarks:

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Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client: WESTERN REFINING SW, INC

GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING ROAD

GALLUP NM 87301

Phone #: 505-722-0231

Email or Fax#: CHERYL.JOHNSON@WNR.COM

QA/QC Package: Standard [X] Level 4 (Full Validation)

Accreditation: [X] NELAP [ ] Other

EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush

Project Name: POND SAMPLING

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: [X] Yes [ ] No

Sample Temperature: 1.0

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	GENCHEM - PH, SPECIFIC CONDUCTANCE, CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
3/3/16	1525	WATER	POND 7	40 mL VOA-3	HCL	1403233-005										✓						
				1 LITER AMBER-1	NEAT												✓					
				125 mL PLASTIC-1	H_2SO_4													✓				
				125 mL PLASTIC-1	HNO_3													✓	✓			
				500 mL PLASTIC-1	HNO_3														✓			
				500 mL PLASTIC-1	NEAT														✓			
3/3/16	1545	WATER	POND 11	40 mL VOA-3	HCL	-006										✓						
				1 LITER AMBER-1	NEAT												✓					
				125 mL PLASTIC-1	H_2SO_4													✓				
				125 mL PLASTIC-1	HNO_3													✓	✓			
				500 mL PLASTIC-1	HNO_3														✓			
				500 mL PLASTIC-1	NEAT														✓			

Date: 3/3/16 Time: 0729 Relinquished by: [signature] Received by: [signature] Date: 3/3/14 Time: 805

Date: 3/3/16 Time: 1636 Relinquished by: [signature] Received by: [signature] Date: 03/03/14 Time: 1636

Remarks:

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