

AP - 111

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

2016

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606621

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID MB	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R35376		RunNo: 35376							
Prep Date:	Analysis Date: 6/30/2016		SeqNo: 1094336		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: R35376		RunNo: 35376							
Prep Date:	Analysis Date: 6/30/2016		SeqNo: 1094337		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			

Sample ID MB	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R35434		RunNo: 35434							
Prep Date:	Analysis Date: 7/5/2016		SeqNo: 1096451		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: R35434		RunNo: 35434							
Prep Date:	Analysis Date: 7/5/2016		SeqNo: 1096452		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.2	0.50	5.000	0	105	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#: 1606621

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	MB-25858		SampType:	MBLK		TestCode:	EPA Method 8011/504.1: EDB				
Client ID:	PBW		Batch ID:	25858		RunNo:	34956				
Prep Date:	6/15/2016		Analysis Date:	6/15/2016		SeqNo:	1080031		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-25858			SampType:	LCS		TestCode:	EPA Method 8011/504.1: EDB			
Client ID:	LCSW			Batch ID:	25858		RunNo:	34956			
Prep Date:	6/15/2016			Analysis Date:	6/15/2016		SeqNo:	1080032		Units:	µg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
1,2-Dibromoethane	0.086	0.010	0.1000	0	85.9	70	130				

Sample ID	1606621-003CMS		SampType: MS		TestCode: EPA Method 8011/504.1: EDB					
Client ID:	MKTF-26		Batch ID: 25858		RunNo: 34956					
Prep Date:	6/15/2016		Analysis Date: 6/15/2016		SeqNo: 1080059		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.091	0.010	0.1000	0.004502	86.2	40.3	153			

Sample ID	1606621-003CMSD			SampType:	MSD		TestCode:	EPA Method 8011/504.1: EDB			
Client ID:	MKTF-26			Batch ID:	25858		RunNo:	34956			
Prep Date:	6/15/2016			Analysis Date:	6/15/2016		SeqNo:	1080061		Units:	µg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
1,2-Dibromoethane	0.081	0.010	0.1000	0.004502	77.0	40.3	153	10.7	29.5		

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

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27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	LCS-25809		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 25809		RunNo: 34862					
Prep Date:	6/13/2016		Analysis Date: 6/13/2016		SeqNo: 1077098		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.4	71.3	139			
Surr: DNOP	0.50		0.5000		99.0	70	141			

Sample ID	MB-25809		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 25809		RunNo: 34862					
Prep Date:	6/13/2016		Analysis Date: 6/13/2016		SeqNo: 1077099		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		112	70	141			

Qualifiers:

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

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
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QC SUMMARY REPORT

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WO#: 1606621

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID 5ML RB	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: A34934		RunNo: 34934							
Prep Date:	Analysis Date: 6/15/2016		SeqNo: 1079447		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	22		20.00		111	66.4	120			

Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: A34934		RunNo: 34934							
Prep Date:	Analysis Date: 6/15/2016		SeqNo: 1079448		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	95.8	80	120			
Surr: BFB	24		20.00		121	66.4	120			S

Sample ID 5ML RB	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: B34963		RunNo: 34963							
Prep Date:	Analysis Date: 6/16/2016		SeqNo: 1080612		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	22		20.00		109	66.4	120			

Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: B34963		RunNo: 34963							
Prep Date:	Analysis Date: 6/16/2016		SeqNo: 1080615		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.42	0.050	0.5000	0	83.7	80	120			
Surr: BFB	24		20.00		119	66.4	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
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ND Not Detected at the Reporting Limit	P Sample pH Not In Range
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Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R35008			RunNo: 35008					
Prep Date:	Analysis Date: 6/17/2016			SeqNo: 1082049			Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	16	1.0	20.00	0	78.1	70	130			
Toluene	16	1.0	20.00	0	79.8	70	130			
Chlorobenzene	16	1.0	20.00	0	77.8	70	130			
1,1-Dichloroethene	15	1.0	20.00	0	74.2	70	130			
Trichloroethene (TCE)	15	1.0	20.00	0	74.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.8	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R35008			RunNo: 35008					
Prep Date:		Analysis Date: 6/17/2016			SeqNo: 1082050		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:

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S % Recovery outside of range due to dilution or matrix

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

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27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R35008			RunNo: 35008					
Prep Date:		Analysis Date: 6/17/2016			SeqNo: 1082050	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:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606621

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R35008			RunNo: 35008						
Prep Date:	Analysis Date: 6/17/2016			SeqNo: 1082050		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	8.8		10.00		87.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.0	70	130			
Surr: Toluene-d8	9.8		10.00		98.1	70	130			

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R35014			RunNo: 35014						
Prep Date:	Analysis Date: 6/20/2016			SeqNo: 1083137		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.0	70	130			
Toluene	20	1.0	20.00	0	98.0	70	130			
Chlorobenzene	20	1.0	20.00	0	98.6	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	90.6	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	92.4	70	130			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.5		10.00		94.6	70	130			
Surr: Toluene-d8	9.8		10.00		98.2	70	130			

Sample ID vsb fridge	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R35014			RunNo: 35014						
Prep Date:	Analysis Date: 6/20/2016			SeqNo: 1083140		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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#: 1606621

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	vsb fridge	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R35014	RunNo:	35014					
Prep Date:		Analysis Date:	6/20/2016	SeqNo:	1083140	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								

Qualifiers:

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

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

QC SUMMARY REPORT

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27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	vsb fridge	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R35014			RunNo: 35014					
Prep Date:		Analysis Date: 6/20/2016			SeqNo: 1083140		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.0		10.00		89.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.4		10.00		93.8	70	130			
Surr: Toluene-d8	9.9		10.00		98.9	70	130			

Sample ID	1606621-003ams		SampType: MS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	MKTF-26		Batch ID: R35014		RunNo: 35014					
Prep Date:			Analysis Date: 6/20/2016		SeqNo: 1083264		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	420	5.0	100.0	328.9	89.9	70	130			
Toluene	120	5.0	100.0	18.63	102	70	130			
Chlorobenzene	100	5.0	100.0	0	102	70	130			
1,1-Dichloroethene	160	5.0	100.0	67.64	91.6	70	130			
Trichloroethene (TCE)	100	5.0	100.0	3.080	99.9	70	130			
Surr: 1,2-Dichloroethane-d4	47		50.00		93.4	70	130			
Surr: 4-Bromofluorobenzene	50		50.00		101	70	130			
Surr: Dibromofluoromethane	49		50.00		97.1	70	130			
Surr: Toluene-d8	50		50.00		99.6	70	130			

Sample ID	1606621-003amsd			SampType:	MSD		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	MKTF-26			Batch ID:	R35014		RunNo:	35014			
Prep Date:				Analysis Date:	6/20/2016		SeqNo:	1083265	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	440	5.0	100.0	328.9	108	70	130				
Toluene	120	5.0	100.0	18.63	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#: 1606621

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	1606621-003amsd			SampType:	MSD		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	MKTF-26			Batch ID:	R35014		RunNo:	35014			
Prep Date:				Analysis Date:	6/20/2016		SeqNo:	1083265		Units:	µg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chlorobenzene	110	5.0	100.0	0	106	70	130				
1,1-Dichloroethene	170	5.0	100.0	67.64	101	70	130				
Trichloroethene (TCE)	110	5.0	100.0	3.080	104	70	130				
Surr: 1,2-Dichloroethane-d4	47		50.00		93.1	70	130				
Surr: 4-Bromofluorobenzene	50		50.00		100	70	130				
Surr: Dibromofluoromethane	49		50.00		97.3	70	130				
Surr: Toluene-d8	50		50.00		100	70	130				

Sample ID	tune 6	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R35071			RunNo: 35071					
Prep Date:		Analysis Date: 6/21/2016			SeqNo: 1084527		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								

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#: 1606621

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	tune 6	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R35071			RunNo: 35071					
Prep Date:		Analysis Date: 6/21/2016			SeqNo: 1084527		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606621

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	tune 6	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R35071			RunNo: 35071					
Prep Date:		Analysis Date: 6/21/2016			SeqNo: 1084527		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.0		10.00		89.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.4		10.00		94.4	70	130			
Surr: Toluene-d8	9.9		10.00		99.4	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R35071			RunNo: 35071					
Prep Date:	Analysis Date: 6/21/2016			SeqNo: 1084542			Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Toluene	20	1.0	20.00	0	102	70	130			
Chlorobenzene	21	1.0	20.00	0	104	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	96.1	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	8.7		10.00		86.9	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.9	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.0	70	130			
Surr: Toluene-d8	9.6		10.00		95.8	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#: 1606621

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	mb-25862	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	25862	RunNo:	35016					
Prep Date:	6/15/2016	Analysis Date:	6/20/2016	SeqNo:	1082703	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	6.6	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	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	2.8	10								J
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606621

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	mb-25862		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 25862		RunNo: 35016					
Prep Date:	6/15/2016		Analysis Date: 6/20/2016		SeqNo: 1082703		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	110		200.0		55.3	15	123			
Surr: Phenol-d5	100		200.0		50.6	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		71.0	18.4	134			
Surr: Nitrobenzene-d5	74		100.0		74.1	28.8	134			
Surr: 2-Fluorobiphenyl	70		100.0		69.7	35.9	125			
Surr: 4-Terphenyl-d14	84		100.0		83.7	15	146			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606621

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	Ics-25862		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 25862		RunNo: 35016					
Prep Date:	6/15/2016		Analysis Date: 6/20/2016		SeqNo: 1082704		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	66.8	35	113			
4-Chloro-3-methylphenol	130	10	200.0	0	64.5	40.7	114			
2-Chlorophenol	130	10	200.0	0	65.3	37.6	113			
1,4-Dichlorobenzene	53	10	100.0	0	53.0	37.7	106			
2,4-Dinitrotoluene	69	10	100.0	0	69.0	37	91			
N-Nitrosodi-n-propylamine	70	10	100.0	0	70.1	45.4	105			
4-Nitrophenol	71	10	200.0	0	35.6	33.4	104			
Pentachlorophenol	100	20	200.0	0	51.9	29.5	94.9			
Phenol	100	10	200.0	0	49.8	30.6	119			
Pyrene	72	10	100.0	0	72.1	26.2	120			
1,2,4-Trichlorobenzene	63	10	100.0	0	62.7	39.9	125			
Surr: 2-Fluorophenol	100		200.0		51.8	15	123			
Surr: Phenol-d5	100		200.0		49.8	4.13	124			
Surr: 2,4,6-Tribromophenol	130		200.0		63.6	18.4	134			
Surr: Nitrobenzene-d5	68		100.0		67.6	28.8	134			
Surr: 2-Fluorobiphenyl	64		100.0		63.6	35.9	125			
Surr: 4-Terphenyl-d14	77		100.0		76.7	15	146			

Qualifiers:

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

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1606621

RcptNo: 1

Received by/date: AF 06/10/16

Logged By: **Anne Thorne** 6/10/2016 3:35:00 PM

Anne Thorne

Completed By: **Anne Thorne** 6/13/2016

Anne Thorne

Reviewed By: *[Signature]* JSU 6/13/16

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? *See remarks* Yes ☒ No ☒ NA ☐ JSU 6/13/16
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: 33
(<2 or >12 unless noted)
Adjusted? yes
Checked by: JSU 6/13/16

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: MKTF-4H H2SO4 was not preserved. Added 0.4ml. Adjusted pH 6.13.16 (1606621-20)
18. Cooler Information: 1000621-003E/004E Add 1mL HCL JSU 6/13/16

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Yes			



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

July 27, 2016

Cheryl Johnson

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

RE: 2016 2ND QTR (MKTF)

OrderNo.: 1606617

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 6/10/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606617

Date Reported: 7/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2016 2ND QTR (MKTF)

Collection Date: 6/8/2016 1:45:00 PM

Lab ID: 1606617-001

Matrix: AQUEOUS

Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/13/2016 6:45:21 PM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 6:45:21 PM	25809
Surr: DNOP	108	0	70-141		%Rec	1	6/13/2016 6:45:21 PM	25809
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/14/2016 5:26:29 PM	A34904
Surr: BFB	101	0	66.4-120		%Rec	1	6/14/2016 5:26:29 PM	A34904
EPA METHOD 300.0: ANIONS							Analyst: MRA	
Fluoride	0.93	0.023	0.10		mg/L	1	6/14/2016 2:22:59 AM	AR3488
Chloride	490	1.4	25		mg/L	50	6/29/2016 11:24:53 PM	A35338
Bromide	2.3	0.032	0.10		mg/L	1	6/14/2016 2:22:59 AM	AR3488
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/14/2016 2:22:59 AM	AR3488
Sulfate	160	1.3	10		mg/L	20	6/14/2016 2:35:23 AM	AR3488
Nitrate+Nitrite as N	0.84	0.42	1.0	J	mg/L	5	6/14/2016 4:39:31 AM	AR3488
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.074	0.0013	0.0020		mg/L	1	6/15/2016 5:43:41 PM	D34920
Cadmium	ND	0.00075	0.0020		mg/L	1	6/15/2016 5:43:41 PM	D34920
Calcium	51	0.26	1.0		mg/L	1	6/15/2016 5:43:41 PM	D34920
Chromium	ND	0.0018	0.0060		mg/L	1	6/15/2016 5:43:41 PM	D34920
Copper	ND	0.0040	0.0060		mg/L	1	6/15/2016 5:43:41 PM	D34920
Iron	0.14	0.0091	0.020		mg/L	1	6/15/2016 5:43:41 PM	D34920
Magnesium	9.9	0.013	1.0		mg/L	1	6/15/2016 5:43:41 PM	D34920
Manganese	0.022	0.00032	0.0020		mg/L	1	6/15/2016 5:43:41 PM	D34920
Potassium	2.4	0.18	1.0		mg/L	1	6/15/2016 5:43:41 PM	D34920
Silver	ND	0.0028	0.0050		mg/L	1	6/15/2016 5:43:41 PM	D34920
Sodium	620	0.96	10		mg/L	10	6/17/2016 2:48:27 PM	A34992
Zinc	0.012	0.0028	0.010		mg/L	1	6/15/2016 5:43:41 PM	D34920
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.14	0.0011	0.0020		mg/L	1	6/28/2016 12:54:48 PM	26104
Cadmium	ND	0.00062	0.0020		mg/L	1	6/28/2016 12:54:48 PM	26104
Chromium	ND	0.0022	0.0060		mg/L	1	6/28/2016 12:54:48 PM	26104
Copper	ND	0.0051	0.0060		mg/L	1	6/28/2016 12:54:48 PM	26104
Iron	4.7	0.036	0.10	*	mg/L	5	6/28/2016 1:00:10 PM	26104
Manganese	0.21	0.0015	0.0020	*	mg/L	1	6/28/2016 12:54:48 PM	26104
Silver	ND	0.0021	0.0050		mg/L	1	6/28/2016 12:54:48 PM	26104
Zinc	0.018	0.0039	0.010		mg/L	1	6/28/2016 12:54:48 PM	26104
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0054	0.0014	0.010	J	mg/L	10	7/8/2016 7:12:42 PM	B35538

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606617

Date Reported: 7/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2016 2ND QTR (MKTF)

Collection Date: 6/8/2016 1:45:00 PM

Lab ID: 1606617-001

Matrix: AQUEOUS

Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Lead	0.00076	0.00017	0.00050		mg/L	1	6/29/2016 8:31:34 PM	B35346
Selenium	0.015	0.0021	0.010		mg/L	10	7/8/2016 7:12:42 PM	B35538
Uranium	0.15	0.00051	0.0050	*	mg/L	10	6/30/2016 7:59:27 PM	B35378
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0059	0.0029	0.010	J	mg/L	10	6/29/2016 11:27:58 AM	26104
Lead	0.0054	0.000047	0.00050		mg/L	1	6/28/2016 8:00:31 PM	26104
Selenium	0.013	0.0062	0.050	J	mg/L	50	6/29/2016 11:30:59 AM	26104
Uranium	0.15	0.000049	0.0050	*	mg/L	10	6/29/2016 11:27:58 AM	26104
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	ND	0.000053	0.00020		mg/L	1	6/28/2016 1:51:21 PM	26107
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC	
Acenaphthene	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Aniline	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 12:53:26 AM	25862
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Bis(2-ethylhexyl)phthalate	4.1	2.6	10	J	µg/L	1	6/21/2016 12:53:26 AM	25862
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 12:53:26 AM	25862
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 12:53:26 AM	25862
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Di-n-octyl phthalate	ND	2.0	10		µg/L	1	6/21/2016 12:53:26 AM	25862

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606617

Date Reported: 7/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2016 2ND QTR (MKTF)

Collection Date: 6/8/2016 1:45:00 PM

Lab ID: 1606617-001

Matrix: AQUEOUS

Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 12:53:26 AM	25862
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 12:53:26 AM	25862
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 12:53:26 AM	25862
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
3,3'-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 12:53:26 AM	25862
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 12:53:26 AM	25862
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 12:53:26 AM	25862
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 12:53:26 AM	25862
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Fluorene	ND	2.7	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
1-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 12:53:26 AM	25862
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/21/2016 12:53:26 AM	25862
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 12:53:26 AM	25862
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Naphthalene	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 12:53:26 AM	25862
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 12:53:26 AM	25862
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 12:53:26 AM	25862
Phenanthrene	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Phenol	ND	2.0	10		µg/L	1	6/21/2016 12:53:26 AM	25862

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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.

Analytical Report

Lab Order 1606617

Date Reported: 7/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2016 2ND QTR (MKTF)

Collection Date: 6/8/2016 1:45:00 PM

Lab ID: 1606617-001

Matrix: AQUEOUS

Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC	
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 12:53:26 AM	25862
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Surr: 2-Fluorophenol	46.0	0	15-123		%Rec	1	6/21/2016 12:53:26 AM	25862
Surr: Phenol-d5	38.1	0	4.13-124		%Rec	1	6/21/2016 12:53:26 AM	25862
Surr: 2,4,6-Tribromophenol	72.7	0	18.4-134		%Rec	1	6/21/2016 12:53:26 AM	25862
Surr: Nitrobenzene-d5	96.6	0	28.8-134		%Rec	1	6/21/2016 12:53:26 AM	25862
Surr: 2-Fluorobiphenyl	76.8	0	35.9-125		%Rec	1	6/21/2016 12:53:26 AM	25862
Surr: 4-Terphenyl-d14	67.2	0	15-146		%Rec	1	6/21/2016 12:53:26 AM	25862
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Toluene	ND	0.12	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Methyl tert-butyl ether (MTBE)	0.54	0.21	1.0	J	µg/L	1	6/17/2016 2:52:00 PM	R35008
1,2,4-Trimethylbenzene	0.19	0.11	1.0	J	µg/L	1	6/17/2016 2:52:00 PM	R35008
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Naphthalene	0.36	0.093	2.0	J	µg/L	1	6/17/2016 2:52:00 PM	R35008
1-Methylnaphthalene	0.80	0.20	4.0	J	µg/L	1	6/17/2016 2:52:00 PM	R35008
2-Methylnaphthalene	1.0	0.16	4.0	J	µg/L	1	6/17/2016 2:52:00 PM	R35008
Acetone	ND	4.9	10		µg/L	1	6/17/2016 2:52:00 PM	R35008
Bromobenzene	ND	0.098	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Bromoform	ND	0.10	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Bromomethane	ND	0.78	3.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
2-Butanone	ND	0.74	10		µg/L	1	6/17/2016 2:52:00 PM	R35008
Carbon disulfide	ND	0.60	10		µg/L	1	6/17/2016 2:52:00 PM	R35008
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Chloroethane	ND	0.19	2.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Chloroform	ND	0.089	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Chloromethane	ND	0.21	3.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606617

Date Reported: 7/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: 2016 2ND QTR (MKTF)

Collection Date: 6/8/2016 1:45:00 PM

Lab ID: 1606617-001

Matrix: AQUEOUS

Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Dibromomethane	ND	0.12	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
2-Hexanone	ND	0.84	10		µg/L	1	6/17/2016 2:52:00 PM	R35008
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/17/2016 2:52:00 PM	R35008
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Styrene	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/17/2016 2:52:00 PM	R35008
Surr: 1,2-Dichloroethane-d4	87.1	0	70-130		%Rec	1	6/17/2016 2:52:00 PM	R35008

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Analytical Report

Lab Order 1606617

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Project: 2016 2ND QTR (MKTF)

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Matrix: AQUEOUS

Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Surr: 4-Bromofluorobenzene	98.3	0	70-130		%Rec	1	6/17/2016 2:52:00 PM	R35008
Surr: Dibromofluoromethane	92.3	0	70-130		%Rec	1	6/17/2016 2:52:00 PM	R35008
Surr: Toluene-d8	98.0	0	70-130		%Rec	1	6/17/2016 2:52:00 PM	R35008

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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: MKTF-27

Project: 2016 2ND QTR (MKTF)

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

Lab ID: 1606617-002

Matrix: AQUEOUS

Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/13/2016 7:51:15 PM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 7:51:15 PM	25809
Surr: DNOP	112	0	70-141		%Rec	1	6/13/2016 7:51:15 PM	25809
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	0.084	0.025	0.050		mg/L	1	6/14/2016 5:51:08 PM	A34904
Surr: BFB	96.4	0	66.4-120		%Rec	1	6/14/2016 5:51:08 PM	A34904
EPA METHOD 300.0: ANIONS							Analyst: LGT	
Fluoride	1.2	0.14	0.50		mg/L	5	6/29/2016 11:37:18 PM	A35338
Chloride	2800	5.5	100		mg/L	200	6/29/2016 11:49:42 PM	A35338
Bromide	1.5	0.22	0.50		mg/L	5	6/29/2016 11:37:18 PM	A35338
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/14/2016 2:47:48 AM	AR3488
Sulfate	350	1.3	10		mg/L	20	6/14/2016 3:00:13 AM	AR3488
Nitrate+Nitrite as N	1.1	0.92	2.0	J	mg/L	10	7/5/2016 10:56:42 PM	A35434
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.074	0.0013	0.0020		mg/L	1	6/15/2016 5:47:28 PM	D34920
Cadmium	ND	0.00075	0.0020		mg/L	1	6/15/2016 5:47:28 PM	D34920
Calcium	170	1.3	5.0		mg/L	5	6/15/2016 5:49:30 PM	D34920
Chromium	ND	0.0018	0.0060		mg/L	1	6/15/2016 5:47:28 PM	D34920
Copper	ND	0.0040	0.0060		mg/L	1	6/15/2016 5:47:28 PM	D34920
Iron	0.40	0.0091	0.020	*	mg/L	1	6/15/2016 5:47:28 PM	D34920
Magnesium	27	0.013	1.0		mg/L	1	6/15/2016 5:47:28 PM	D34920
Manganese	0.52	0.00032	0.0020	*	mg/L	1	6/15/2016 5:47:28 PM	D34920
Potassium	9.9	0.18	1.0		mg/L	1	6/15/2016 5:47:28 PM	D34920
Silver	ND	0.0028	0.0050		mg/L	1	6/15/2016 5:47:28 PM	D34920
Sodium	1900	1.9	20		mg/L	20	6/17/2016 2:50:26 PM	A34992
Zinc	0.0070	0.0028	0.010	J	mg/L	1	6/15/2016 5:47:28 PM	D34920
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.21	0.0011	0.0020		mg/L	1	6/28/2016 1:06:04 PM	26104
Cadmium	ND	0.00062	0.0020		mg/L	1	6/28/2016 1:06:04 PM	26104
Chromium	0.0053	0.0022	0.0060	J	mg/L	1	6/28/2016 1:06:04 PM	26104
Copper	ND	0.0051	0.0060		mg/L	1	6/28/2016 1:06:04 PM	26104
Iron	9.6	0.072	0.20	*	mg/L	10	6/28/2016 7:31:27 PM	26104
Manganese	0.93	0.0015	0.0020	*	mg/L	1	6/28/2016 1:06:04 PM	26104
Silver	ND	0.0021	0.0050		mg/L	1	6/28/2016 1:06:04 PM	26104
Zinc	0.041	0.0039	0.010		mg/L	1	6/28/2016 1:06:04 PM	26104
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0036	0.00069	0.0050	J	mg/L	5	7/8/2016 7:28:07 PM	B35538

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606617

Date Reported: 7/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2016 2ND QTR (MKTF)

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

Lab ID: 1606617-002

Matrix: AQUEOUS

Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Lead	0.0025	0.00084	0.0025		mg/L	5	6/30/2016 8:09:43 PM	B35378
Selenium	0.014	0.011	0.050	J	mg/L	50	7/1/2016 5:38:35 PM	A35415
Uranium	0.056	0.00026	0.0025	*	mg/L	5	6/30/2016 8:09:43 PM	B35378
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0042	0.0015	0.0050	J	mg/L	5	6/29/2016 11:34:00 AM	26104
Lead	0.011	0.00024	0.0025		mg/L	5	6/29/2016 11:34:00 AM	26104
Selenium	0.011	0.00062	0.0050		mg/L	5	6/29/2016 11:34:00 AM	26104
Uranium	0.059	0.000025	0.0025	*	mg/L	5	6/29/2016 11:34:00 AM	26104
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.000086	0.000053	0.00020	J	mg/L	1	6/28/2016 1:57:34 PM	26107
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC	
Acenaphthene	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Aniline	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 1:21:26 AM	25862
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Bis(2-ethylhexyl)phthalate	3.9	2.6	10	J	µg/L	1	6/21/2016 1:21:26 AM	25862
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 1:21:26 AM	25862
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 1:21:26 AM	25862
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Di-n-octyl phthalate	5.3	2.0	10	J	µg/L	1	6/21/2016 1:21:26 AM	25862

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606617

Date Reported: 7/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2016 2ND QTR (MKTF)

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

Lab ID: 1606617-002

Matrix: AQUEOUS

Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 1:21:26 AM	25862
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 1:21:26 AM	25862
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 1:21:26 AM	25862
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
3,3'-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 1:21:26 AM	25862
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 1:21:26 AM	25862
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 1:21:26 AM	25862
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 1:21:26 AM	25862
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Fluorene	ND	2.7	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
1-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 1:21:26 AM	25862
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/21/2016 1:21:26 AM	25862
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 1:21:26 AM	25862
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Naphthalene	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 1:21:26 AM	25862
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 1:21:26 AM	25862
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 1:21:26 AM	25862
Phenanthrene	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Phenol	ND	2.0	10		µg/L	1	6/21/2016 1:21:26 AM	25862

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606617

Date Reported: 7/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2016 2ND QTR (MKTF)

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

Lab ID: 1606617-002

Matrix: AQUEOUS

Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC	
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 1:21:26 AM	25862
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Surr: 2-Fluorophenol	52.1	0	15-123		%Rec	1	6/21/2016 1:21:26 AM	25862
Surr: Phenol-d5	42.4	0	4.13-124		%Rec	1	6/21/2016 1:21:26 AM	25862
Surr: 2,4,6-Tribromophenol	82.1	0	18.4-134		%Rec	1	6/21/2016 1:21:26 AM	25862
Surr: Nitrobenzene-d5	99.4	0	28.8-134		%Rec	1	6/21/2016 1:21:26 AM	25862
Surr: 2-Fluorobiphenyl	85.0	0	35.9-125		%Rec	1	6/21/2016 1:21:26 AM	25862
Surr: 4-Terphenyl-d14	78.7	0	15-146		%Rec	1	6/21/2016 1:21:26 AM	25862
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	0.15	0.096	1.0	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
Toluene	0.40	0.12	1.0	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
Ethylbenzene	0.15	0.11	1.0	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
Methyl tert-butyl ether (MTBE)	42	0.21	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,2,4-Trimethylbenzene	0.49	0.11	1.0	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
1,3,5-Trimethylbenzene	0.17	0.12	1.0	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
1,2-Dichloroethane (EDC)	0.70	0.12	1.0	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Naphthalene	ND	0.093	2.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Acetone	ND	4.9	10		µg/L	1	6/17/2016 4:09:00 PM	R35008
Bromobenzene	ND	0.098	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Bromoform	ND	0.10	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Bromomethane	ND	0.78	3.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
2-Butanone	ND	0.74	10		µg/L	1	6/17/2016 4:09:00 PM	R35008
Carbon disulfide	ND	0.60	10		µg/L	1	6/17/2016 4:09:00 PM	R35008
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Chloroethane	ND	0.19	2.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Chloroform	ND	0.089	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Chloromethane	ND	0.21	3.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
cis-1,2-DCE	0.22	0.12	1.0	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008

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Analytical Report

Lab Order 1606617

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CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2016 2ND QTR (MKTF)

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Lab ID: 1606617-002

Matrix: AQUEOUS

Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Dibromomethane	ND	0.12	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,1-Dichloroethane	2.8	0.11	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,1-Dichloroethene	0.74	0.11	1.0	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
2-Hexanone	ND	0.84	10		µg/L	1	6/17/2016 4:09:00 PM	R35008
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/17/2016 4:09:00 PM	R35008
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
sec-Butylbenzene	0.16	0.12	1.0	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
Styrene	ND	0.11	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Xylenes, Total	0.91	0.37	1.5	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
Surr: 1,2-Dichloroethane-d4	88.0	0	70-130		%Rec	1	6/17/2016 4:09:00 PM	R35008

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606617

Date Reported: 7/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: 2016 2ND QTR (MKTF)

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

Lab ID: 1606617-002

Matrix: AQUEOUS

Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Surr: 4-Bromofluorobenzene	105	0	70-130		%Rec	1	6/17/2016 4:09:00 PM	R35008
Surr: Dibromofluoromethane	93.2	0	70-130		%Rec	1	6/17/2016 4:09:00 PM	R35008
Surr: Toluene-d8	97.6	0	70-130		%Rec	1	6/17/2016 4:09:00 PM	R35008

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606617

Date Reported: 7/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2016 2ND QTR (MKTF)

Collection Date: 6/8/2016 3:00:00 PM

Lab ID: 1606617-003

Matrix: AQUEOUS

Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB								
Analyst: JME								
1,2-Dibromoethane	0.043	0.0033	0.010		µg/L	1	6/15/2016 4:16:21 PM	25857
EPA METHOD 8015M/D: DIESEL RANGE								
Analyst: TOM								
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/13/2016 8:13:15 PM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 8:13:15 PM	25809
Surr: DNOP	111	0	70-141		%Rec	1	6/13/2016 8:13:15 PM	25809
EPA METHOD 8015D: GASOLINE RANGE								
Analyst: NSB								
Gasoline Range Organics (GRO)	14	1.3	2.5		mg/L	50	6/14/2016 6:15:38 PM	A34904
Surr: BFB	101	0	66.4-120		%Rec	50	6/14/2016 6:15:38 PM	A34904
EPA METHOD 300.0: ANIONS								
Analyst: MRA								
Fluoride	0.097	0.023	0.10	J	mg/L	1	6/14/2016 3:37:27 AM	AR3488
Chloride	700	1.4	25		mg/L	50	6/30/2016 12:02:06 AM	A35338
Bromide	0.47	0.032	0.10		mg/L	1	6/14/2016 3:37:27 AM	AR3488
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/14/2016 3:37:27 AM	AR3488
Sulfate	60	1.3	10		mg/L	20	6/14/2016 3:49:52 AM	AR3488
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/14/2016 5:04:21 AM	AR3488
EPA METHOD 200.7: DISSOLVED METALS								
Analyst: ELS								
Barium	0.27	0.0013	0.0020		mg/L	1	6/15/2016 5:51:32 PM	D34920
Cadmium	ND	0.00075	0.0020		mg/L	1	6/15/2016 5:51:32 PM	D34920
Calcium	130	1.3	5.0		mg/L	5	6/15/2016 5:53:31 PM	D34920
Chromium	ND	0.0018	0.0060		mg/L	1	6/15/2016 5:51:32 PM	D34920
Copper	ND	0.0040	0.0060		mg/L	1	6/15/2016 5:51:32 PM	D34920
Iron	0.65	0.0091	0.020	*	mg/L	1	6/15/2016 5:51:32 PM	D34920
Magnesium	23	0.013	1.0		mg/L	1	6/15/2016 5:51:32 PM	D34920
Manganese	1.9	0.0016	0.010	*	mg/L	5	6/15/2016 5:53:31 PM	D34920
Potassium	3.7	0.18	1.0		mg/L	1	6/15/2016 5:51:32 PM	D34920
Silver	ND	0.0028	0.0050		mg/L	1	6/15/2016 5:51:32 PM	D34920
Sodium	620	0.96	10		mg/L	10	6/17/2016 2:52:16 PM	A34992
Zinc	ND	0.0028	0.010		mg/L	1	6/15/2016 5:51:32 PM	D34920
EPA METHOD 200.7: TOTAL METALS								
Analyst: ELS								
Barium	15	0.053	0.10	*	mg/L	50	6/29/2016 1:23:32 PM	26104
Cadmium	ND	0.0031	0.010		mg/L	5	6/29/2016 1:21:42 PM	26104
Chromium	0.19	0.011	0.030	*	mg/L	5	6/29/2016 1:21:42 PM	26104
Copper	0.23	0.026	0.030		mg/L	5	6/29/2016 1:21:42 PM	26104
Iron	120	1.4	4.0	*	mg/L	200	6/29/2016 1:25:19 PM	26104
Manganese	35	0.076	0.10	*	mg/L	50	6/29/2016 1:23:32 PM	26104
Silver	ND	0.011	0.025		mg/L	5	6/29/2016 1:21:42 PM	26104
Zinc	0.38	0.019	0.050		mg/L	5	6/29/2016 1:21:42 PM	26104

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606617

Date Reported: 7/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2016 2ND QTR (MKTF)

Collection Date: 6/8/2016 3:00:00 PM

Lab ID: 1606617-003

Matrix: AQUEOUS

Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0045	0.00069	0.0050	J	mg/L	5	7/8/2016 7:43:33 PM	B35538
Lead	0.0019	0.00017	0.00050		mg/L	1	6/29/2016 8:41:50 PM	B35346
Selenium	0.0084	0.0011	0.0050		mg/L	5	7/8/2016 7:43:33 PM	B35538
Uranium	0.027	0.00026	0.0025		mg/L	5	6/30/2016 8:20:00 PM	B35378
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.026	0.0015	0.0050	*	mg/L	5	6/29/2016 11:43:01 AM	26104
Lead	0.49	0.0024	0.025	*	mg/L	50	6/29/2016 11:58:08 AM	26104
Selenium	0.029	0.0062	0.050	J	mg/L	50	6/29/2016 11:58:08 AM	26104
Uranium	0.077	0.000025	0.0025	*	mg/L	5	6/29/2016 11:43:01 AM	26104
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.00060	0.000053	0.00020		mg/L	1	6/28/2016 1:59:35 PM	26107
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC	
Acenaphthene	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Aniline	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 1:49:19 AM	25862
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Bis(2-ethylhexyl)phthalate	3.4	2.6	10	J	µg/L	1	6/21/2016 1:49:19 AM	25862
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 1:49:19 AM	25862
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 1:49:19 AM	25862
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 1:49:19 AM	25862
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 1:49:19 AM	25862
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606617

Date Reported: 7/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2016 2ND QTR (MKTF)

Collection Date: 6/8/2016 3:00:00 PM

Lab ID: 1606617-003

Matrix: AQUEOUS

Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC	
Di-n-octyl phthalate	5.0	2.0	10	J	µg/L	1	6/21/2016 1:49:19 AM	25862
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 1:49:19 AM	25862
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 1:49:19 AM	25862
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 1:49:19 AM	25862
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862
3,3'-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 1:49:19 AM	25862
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 1:49:19 AM	25862
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 1:49:19 AM	25862
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 1:49:19 AM	25862
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 1:49:19 AM	25862
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Fluorene	ND	2.7	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
1-Methylnaphthalene	3.4	2.9	10	J	µg/L	1	6/21/2016 1:49:19 AM	25862
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 1:49:19 AM	25862
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 1:49:19 AM	25862
3+4-Methylphenol	4.5	2.3	10	J	µg/L	1	6/21/2016 1:49:19 AM	25862
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 1:49:19 AM	25862
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Naphthalene	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 1:49:19 AM	25862
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 1:49:19 AM	25862
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 1:49:19 AM	25862
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 1:49:19 AM	25862
Phenanthrene	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606617

Date Reported: 7/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2016 2ND QTR (MKTF)

Collection Date: 6/8/2016 3:00:00 PM

Lab ID: 1606617-003

Matrix: AQUEOUS

Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC	
Phenol	5.6	2.0	10	J	µg/L	1	6/21/2016 1:49:19 AM	25862
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 1:49:19 AM	25862
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 1:49:19 AM	25862
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Surr: 2-Fluorophenol	44.5	0	15-123		%Rec	1	6/21/2016 1:49:19 AM	25862
Surr: Phenol-d5	39.4	0	4.13-124		%Rec	1	6/21/2016 1:49:19 AM	25862
Surr: 2,4,6-Tribromophenol	85.6	0	18.4-134		%Rec	1	6/21/2016 1:49:19 AM	25862
Surr: Nitrobenzene-d5	87.0	0	28.8-134		%Rec	1	6/21/2016 1:49:19 AM	25862
Surr: 2-Fluorobiphenyl	82.1	0	35.9-125		%Rec	1	6/21/2016 1:49:19 AM	25862
Surr: 4-Terphenyl-d14	75.1	0	15-146		%Rec	1	6/21/2016 1:49:19 AM	25862
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	3000	4.8	50		µg/L	50	6/17/2016 4:33:00 PM	R35008
Toluene	18	0.59	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Ethylbenzene	74	0.56	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Methyl tert-butyl ether (MTBE)	210	1.1	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,2,4-Trimethylbenzene	3.2	0.55	5.0	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
1,3,5-Trimethylbenzene	0.75	0.58	5.0	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Naphthalene	4.0	0.46	10	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
1-Methylnaphthalene	3.8	1.0	20	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
2-Methylnaphthalene	ND	0.79	20		µg/L	5	6/17/2016 4:57:00 PM	R35008
Acetone	44	25	50	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
Bromobenzene	ND	0.49	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Bromodichloromethane	ND	0.70	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Bromoform	ND	0.51	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Bromomethane	ND	3.9	15		µg/L	5	6/17/2016 4:57:00 PM	R35008
2-Butanone	12	3.7	50	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
Carbon disulfide	ND	3.0	50		µg/L	5	6/17/2016 4:57:00 PM	R35008
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Chlorobenzene	ND	0.57	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Chloroethane	ND	0.96	10		µg/L	5	6/17/2016 4:57:00 PM	R35008
Chloroform	ND	0.44	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Chloromethane	ND	1.1	15		µg/L	5	6/17/2016 4:57:00 PM	R35008
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
cis-1,2-DCE	28	0.62	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606617

Date Reported: 7/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2016 2ND QTR (MKTF)

Collection Date: 6/8/2016 3:00:00 PM

Lab ID: 1606617-003

Matrix: AQUEOUS

Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	6/17/2016 4:57:00 PM	R35008
Dibromochloromethane	ND	0.43	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Dibromomethane	ND	0.60	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,1-Dichloroethane	92	0.54	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,1-Dichloroethene	46	0.54	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
2,2-Dichloropropane	ND	0.83	10		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
2-Hexanone	ND	4.2	50		µg/L	5	6/17/2016 4:57:00 PM	R35008
Isopropylbenzene	13	0.52	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	6/17/2016 4:57:00 PM	R35008
Methylene Chloride	ND	0.94	15		µg/L	5	6/17/2016 4:57:00 PM	R35008
n-Butylbenzene	4.2	0.80	15	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
n-Propylbenzene	22	0.66	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
sec-Butylbenzene	3.2	0.62	5.0	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
Styrene	ND	0.55	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	6/17/2016 4:57:00 PM	R35008
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,1,1-Trichloroethane	3.6	0.46	5.0	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
1,1,2-Trichloroethane	1.4	0.64	5.0	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
Trichloroethene (TCE)	4.3	0.88	5.0	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	6/17/2016 4:57:00 PM	R35008
Vinyl chloride	4.9	0.98	5.0	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
Xylenes, Total	6.0	1.8	7.5	J	µg/L	5	6/17/2016 4:57:00 PM	R35008

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606617

Date Reported: 7/27/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: 2016 2ND QTR (MKTF)

Collection Date: 6/8/2016 3:00:00 PM

Lab ID: 1606617-003

Matrix: AQUEOUS

Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Surr: 1,2-Dichloroethane-d4	90.7	0	70-130		%Rec	5	6/17/2016 4:57:00 PM	R35008
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	5	6/17/2016 4:57:00 PM	R35008
Surr: Dibromofluoromethane	92.0	0	70-130		%Rec	5	6/17/2016 4:57:00 PM	R35008
Surr: Toluene-d8	102	0	70-130		%Rec	5	6/17/2016 4:57:00 PM	R35008

Refer to the QC Summary report and 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#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID MB-D	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PBW	Batch ID: D34920		RunNo: 34920							
Prep Date:	Analysis Date: 6/15/2016		SeqNo: 1079533		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-D	SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: LCSW	Batch ID: D34920		RunNo: 34920							
Prep Date:	Analysis Date: 6/15/2016		SeqNo: 1079534		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			
Calcium	50	1.0	50.00	0	101	85	115			
Chromium	0.50	0.0060	0.5000	0	99.1	85	115			
Copper	0.50	0.0060	0.5000	0	100	85	115			
Iron	0.49	0.020	0.5000	0	97.4	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	97.3	85	115			
Potassium	48	1.0	50.00	0	96.8	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Zinc	0.49	0.010	0.5000	0	98.1	85	115			

Sample ID LLCS-D	SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: D34920		RunNo: 34920							
Prep Date:	Analysis Date: 6/15/2016		SeqNo: 1079535		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Barium	0.0023	0.0020	0.002000	0	116	50	150			
Cadmium	0.0021	0.0020	0.002000	0	107	50	150			
Calcium	0.54	1.0	0.5000	0	109	50	150			J
Chromium	0.0058	0.0060	0.006000	0	97.0	50	150			J
Copper	0.0062	0.0060	0.006000	0	104	50	150			
Iron	0.021	0.020	0.02000	0	104	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#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	LLLCS-D		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: D34920		RunNo: 34920					
Prep Date:			Analysis Date: 6/15/2016		SeqNo: 1079535		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	0.54	1.0	0.5000	0	107	50	150			J
Manganese	0.0021	0.0020	0.002000	0	105	50	150			
Potassium	0.53	1.0	0.5000	0	107	50	150			J
Silver	0.0050	0.0050	0.005000	0	101	50	150			
Zinc	0.0062	0.010	0.005000	0	125	50	150			J

Sample ID	MB-A		SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW		Batch ID: A34992		RunNo: 34992					
Prep Date:			Analysis Date: 6/17/2016		SeqNo: 1081597		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID	LCS-A		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: A34992		RunNo: 34992					
Prep Date:			Analysis Date: 6/17/2016		SeqNo: 1081598		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	49	1.0	50.00	0	98.0	85	115			

Sample ID	LLLCS-A	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID: A34992			RunNo: 34992					
Prep Date:		Analysis Date: 6/17/2016			SeqNo: 1081599		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	0.49	1.0	0.5000	0	97.8	50	150			J

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	MB-26104		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	26104		RunNo:	35265			
Prep Date:	6/27/2016		Analysis Date:	6/28/2016		SeqNo:	1090649	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-26104		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	26104		RunNo:	35265			
Prep Date:	6/27/2016		Analysis Date:	6/28/2016		SeqNo:	1090650	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.4	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	98.3	85	115			
Copper	0.48	0.0060	0.5000	0	95.4	85	115			
Iron	0.47	0.020	0.5000	0	94.2	85	115			
Manganese	0.48	0.0020	0.5000	0	96.0	85	115			
Silver	0.10	0.0050	0.1000	0	99.9	85	115			
Zinc	0.49	0.010	0.5000	0	98.5	85	115			

Sample ID	LLCS-26104		SampType:	LCSLL		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	BatchQC		Batch ID:	26104		RunNo:	35265			
Prep Date:	6/27/2016		Analysis Date:	6/28/2016		SeqNo:	1090651	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0027	0.0020	0.002000	0	134	50	150			
Cadmium	0.0027	0.0020	0.002000	0	134	50	150			
Chromium	0.0062	0.0060	0.006000	0	103	50	150			
Copper	0.0059	0.0060	0.006000	0	98.7	50	150			J
Iron	0.018	0.020	0.02000	0	88.6	50	150			J
Manganese	0.0019	0.0020	0.002000	0	94.5	50	150			J
Silver	0.0052	0.0050	0.005000	0	105	50	150			
Zinc	0.0056	0.010	0.005000	0	111	50	150			J

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	1606617-001EMS		SampType: MS			TestCode: EPA Method 200.7: Total Metals				
Client ID:	MKTF-28		Batch ID: 26104			RunNo: 35265				
Prep Date:	6/27/2016		Analysis Date: 6/28/2016			SeqNo: 1090926		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1416	101	70	130			
Cadmium	0.51	0.0020	0.5000	0	102	70	130			
Chromium	0.49	0.0060	0.5000	0	98.9	70	130			
Copper	0.53	0.0060	0.5000	0	105	70	130			
Manganese	0.70	0.0020	0.5000	0.2108	98.1	70	130			
Silver	0.10	0.0050	0.1000	0	102	70	130			
Zinc	0.52	0.010	0.5000	0.01820	101	70	130			

Sample ID	1606617-001EMSD		SampType: MSD			TestCode: EPA Method 200.7: Total Metals				
Client ID:	MKTF-28		Batch ID: 26104			RunNo: 35265				
Prep Date:	6/27/2016		Analysis Date: 6/28/2016			SeqNo: 1090927		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.67	0.0020	0.5000	0.1416	105	70	130	3.12	20	
Cadmium	0.51	0.0020	0.5000	0	103	70	130	1.16	20	
Chromium	0.50	0.0060	0.5000	0	101	70	130	1.81	20	
Copper	0.54	0.0060	0.5000	0	108	70	130	2.85	20	
Manganese	0.72	0.0020	0.5000	0.2108	102	70	130	2.52	20	
Silver	0.10	0.0050	0.1000	0	105	70	130	2.28	20	
Zinc	0.53	0.010	0.5000	0.01820	103	70	130	2.08	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#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: B35346			RunNo: 35346						
Prep Date:	Analysis Date: 6/29/2016			SeqNo: 1093450		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	94.6	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: B35346			RunNo: 35346						
Prep Date:	Analysis Date: 6/29/2016			SeqNo: 1093453		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	97.8	50	150			J

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: B35346			RunNo: 35346						
Prep Date:	Analysis Date: 6/29/2016			SeqNo: 1093455		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: B35378			RunNo: 35378						
Prep Date:	Analysis Date: 6/30/2016			SeqNo: 1094537		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	94.0	85	115			
Uranium	0.012	0.00050	0.01250	0	95.9	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: B35378			RunNo: 35378						
Prep Date:	Analysis Date: 6/30/2016			SeqNo: 1094539		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00047	0.00050	0.0005000	0	94.4	50	150			J
Uranium	0.00048	0.00050	0.0005000	0	95.6	50	150			J

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: B35378			RunNo: 35378						
Prep Date:	Analysis Date: 6/30/2016			SeqNo: 1094541		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
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#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: A35415			RunNo: 35415						
Prep Date:	Analysis Date: 7/1/2016			SeqNo: 1095863		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.024	0.0010	0.02500	0	96.2	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: A35415			RunNo: 35415						
Prep Date:	Analysis Date: 7/1/2016			SeqNo: 1095865		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.00097	0.0010	0.001000	0	97.4	50	150			J

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: A35415			RunNo: 35415						
Prep Date:	Analysis Date: 7/1/2016			SeqNo: 1095867		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: B35538			RunNo: 35538						
Prep Date:	Analysis Date: 7/8/2016			SeqNo: 1100547		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.026	0.0010	0.02500	0	102	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: B35538			RunNo: 35538						
Prep Date:	Analysis Date: 7/8/2016			SeqNo: 1100548		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	102	50	150			
Selenium	0.0011	0.0010	0.001000	0	106	50	150			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: B35538			RunNo: 35538						
Prep Date:	Analysis Date: 7/8/2016			SeqNo: 1100549		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								

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	MB-26104		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	PBW		Batch ID:	26104		RunNo:	35300			
Prep Date:	6/27/2016		Analysis Date:	6/28/2016		SeqNo:	1091858	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	0.00010	0.00050								J
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-26104		SampType:	LCS		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	LCSW		Batch ID:	26104		RunNo:	35300			
Prep Date:	6/27/2016		Analysis Date:	6/28/2016		SeqNo:	1091860	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.6	85	115			
Lead	0.012	0.00050	0.01250	0	98.0	85	115			
Selenium	0.024	0.0010	0.02500	0	95.4	85	115			
Uranium	0.012	0.00050	0.01250	0	97.6	85	115			

Sample ID	MSLLCS-26104		SampType:	LCSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC		Batch ID:	26104		RunNo:	35300			
Prep Date:	6/27/2016		Analysis Date:	6/28/2016		SeqNo:	1091862	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	100	50	150			
Lead	0.00052	0.00050	0.0005000	0	104	50	150			
Selenium	0.00093	0.0010	0.001000	0	92.5	50	150			J
Uranium	0.00050	0.00050	0.0005000	0	100	50	150			

Sample ID	1606617-002EMSL		SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	MKTF-27		Batch ID:	26104		RunNo:	35310			
Prep Date:	6/27/2016		Analysis Date:	6/29/2016		SeqNo:	1092026	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0050	0.02500	0.004186	98.8	70	130			
Lead	0.023	0.0025	0.01250	0.01059	101	70	130			
Selenium	0.032	0.0050	0.02500	0.01072	85.1	70	130			
Uranium	0.072	0.0025	0.01250	0.05948	99.1	70	130			

Sample ID	1606617-003EMSDL		SampType:	MSDLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	MKTF-24		Batch ID:	26104		RunNo:	35310			
Prep Date:	6/27/2016		Analysis Date:	6/29/2016		SeqNo:	1092029	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#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	1606617-003EMSDL	SampType:	MSDLL	TestCode:	200.8 ICPMS Metals:Total						
Client ID:	MKTF-24	Batch ID:	26104	RunNo:	35310						
Prep Date:	6/27/2016	Analysis Date:	6/29/2016	SeqNo:	1092029	Units:	mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.039	0.0050	0.02500	0.02644	52.0	70	130	0	20	S	

Sample ID	1606617-003EMSL	SampType:	MSLL	TestCode:	200.8 ICPMS Metals:Total						
Client ID:	MKTF-24	Batch ID:	26104	RunNo:	35310						
Prep Date:	6/27/2016	Analysis Date:	6/29/2016	SeqNo:	1092030	Units:	mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.039	0.0050	0.02500	0.02644	50.1	70	130			S	

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	MB-26107		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 26107		RunNo: 35280					
Prep Date:	6/27/2016		Analysis Date: 6/28/2016		SeqNo: 1091051		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-26107		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 26107		RunNo: 35280					
Prep Date:	6/27/2016		Analysis Date: 6/28/2016		SeqNo: 1091052		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.4	80	120			

Sample ID	1606617-001EMS		SampType: MS		TestCode: EPA Method 245.1: Mercury					
Client ID:	MKTF-28		Batch ID: 26107		RunNo: 35280					
Prep Date:	6/27/2016		Analysis Date: 6/28/2016		SeqNo: 1091054		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	105	75	125			

Sample ID	1606617-001EMSD			SampType:	MSD		TestCode:	EPA Method 245.1: Mercury			
Client ID:	MKTF-28			Batch ID:	26107		RunNo:	35280			
Prep Date:	6/27/2016			Analysis Date:	6/28/2016		SeqNo:	1091055		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0053	0.00020	0.005000	0	106	75	125	0.783	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#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID MB	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: AR34887		RunNo: 34887							
Prep Date:	Analysis Date: 6/13/2016		SeqNo: 1077666		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: lcs		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: AR34887		RunNo: 34887							
Prep Date:	Analysis Date: 6/13/2016		SeqNo: 1077667		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Bromide	2.5	0.10	2.500	0	98.1	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.3	90	110			
Sulfate	9.6	0.50	10.00	0	96.4	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	98.7	90	110			

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: A35338		RunNo: 35338							
Prep Date:	Analysis Date: 6/29/2016		SeqNo: 1093234		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								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: A35338		RunNo: 35338							
Prep Date:	Analysis Date: 6/29/2016		SeqNo: 1093235		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.54	0.10	0.5000	0	108	90	110			
Chloride	5.1	0.50	5.000	0	102	90	110			
Bromide	2.6	0.10	2.500	0	103	90	110			

Sample ID MB	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: A35434		RunNo: 35434							
Prep Date:	Analysis Date: 7/5/2016		SeqNo: 1096506		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#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID MB	SampType: mblk			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: A35434			RunNo: 35434						
Prep Date:	Analysis Date: 7/5/2016			SeqNo: 1096506		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: A35434			RunNo: 35434						
Prep Date:	Analysis Date: 7/5/2016			SeqNo: 1096507		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	98.8	90	110			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	MB-25857		SampType:	MBLK		TestCode:	EPA Method 8011/504.1: EDB				
Client ID:	PBW		Batch ID:	25857		RunNo:	34956				
Prep Date:	6/15/2016		Analysis Date:	6/15/2016		SeqNo:	1080029		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-25857		SampType: LCS		TestCode: EPA Method 8011/504.1: EDB					
Client ID:	LCSW		Batch ID: 25857		RunNo: 34956					
Prep Date:	6/15/2016		Analysis Date: 6/15/2016		SeqNo: 1080030		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.090	0.010	0.1000	0	90.5	70	130			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	1606617-001BMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	MKTF-28		Batch ID: 25809		RunNo: 34862					
Prep Date:	6/13/2016		Analysis Date: 6/13/2016		SeqNo: 1077080		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.5	1.0	5.000	0	110	59.4	160			
Surr: DNOP	0.54		0.5000		108	70	141			

Sample ID	1606617-001BMSD			SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range			
Client ID:	MKTF-28		Batch ID:	25809		RunNo:	34862				
Prep Date:	6/13/2016		Analysis Date:	6/13/2016		SeqNo:	1077084		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	5.4	1.0	5.000	0	107	59.4	160	2.03	20		
Surr: DNOP	0.53		0.5000		107	70	141	0	0		

Sample ID	LCS-25809		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 25809		RunNo: 34862					
Prep Date:	6/13/2016		Analysis Date: 6/13/2016		SeqNo: 1077098		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.4	71.3	139			
Surr: DNOP	0.50		0.5000		99.0	70	141			

Sample ID	MB-25809		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 25809		RunNo: 34862					
Prep Date:	6/13/2016		Analysis Date: 6/13/2016		SeqNo: 1077099		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		112	70	141			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	5ML RB		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW		Batch ID: A34904		RunNo: 34904					
Prep Date:			Analysis Date: 6/14/2016		SeqNo: 1078014		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	21		20.00		103	66.4	120			

Sample ID	2.5UG GRO LCS	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID: A34904			RunNo: 34904					
Prep Date:		Analysis Date: 6/14/2016			SeqNo: 1078015		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.45	0.050	0.5000	0	90.8	80	120			
Surr: BFB	23		20.00		113	66.4	120			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R35008			RunNo: 35008					
Prep Date:	Analysis Date: 6/17/2016			SeqNo: 1082049		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	16	1.0	20.00	0	78.1	70	130			
Toluene	16	1.0	20.00	0	79.8	70	130			
Chlorobenzene	16	1.0	20.00	0	77.8	70	130			
1,1-Dichloroethene	15	1.0	20.00	0	74.2	70	130			
Trichloroethene (TCE)	15	1.0	20.00	0	74.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.8	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R35008			RunNo: 35008					
Prep Date:		Analysis Date: 6/17/2016			SeqNo: 1082050		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.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R35008			RunNo: 35008					
Prep Date:		Analysis Date: 6/17/2016			SeqNo: 1082050	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.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R35008			RunNo: 35008						
Prep Date:	Analysis Date: 6/17/2016			SeqNo: 1082050		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	8.8		10.00		87.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.0	70	130			
Surr: Toluene-d8	9.8		10.00		98.1	70	130			

Sample ID 1606617-001AMS	SampType: MS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: MKTF-28	Batch ID: R35008			RunNo: 35008						
Prep Date:	Analysis Date: 6/17/2016			SeqNo: 1082062		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	100	70	130			
Toluene	21	1.0	20.00	0	106	70	130			
Chlorobenzene	21	1.0	20.00	0	107	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	92.4	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	99.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		89.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.1	70	130			
Surr: Toluene-d8	9.9		10.00		98.9	70	130			

Sample ID 1606617-001AMSD	SampType: MSD			TestCode: EPA Method 8260B: VOLATILES						
Client ID: MKTF-28	Batch ID: R35008			RunNo: 35008						
Prep Date:	Analysis Date: 6/17/2016			SeqNo: 1082063		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.6	70	130	0.690	20	
Toluene	21	1.0	20.00	0	105	70	130	0.475	20	
Chlorobenzene	21	1.0	20.00	0	104	70	130	2.22	20	
1,1-Dichloroethene	19	1.0	20.00	0	95.1	70	130	2.79	20	
Trichloroethene (TCE)	20	1.0	20.00	0	97.7	70	130	1.30	20	
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.0	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130	0	0	
Surr: Dibromofluoromethane	9.3		10.00		92.5	70	130	0	0	
Surr: Toluene-d8	10		10.00		101	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
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#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	mb-25862		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 25862		RunNo: 35016					
Prep Date:	6/15/2016		Analysis Date: 6/20/2016		SeqNo: 1082703		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	6.6	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	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	2.8	10								J
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	mb-25862		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 25862		RunNo: 35016					
Prep Date:	6/15/2016		Analysis Date: 6/20/2016		SeqNo: 1082703		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	110		200.0		55.3	15	123			
Surr: Phenol-d5	100		200.0		50.6	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		71.0	18.4	134			
Surr: Nitrobenzene-d5	74		100.0		74.1	28.8	134			
Surr: 2-Fluorobiphenyl	70		100.0		69.7	35.9	125			
Surr: 4-Terphenyl-d14	84		100.0		83.7	15	146			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1606617

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	Ics-25862		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 25862		RunNo: 35016					
Prep Date:	6/15/2016		Analysis Date: 6/20/2016		SeqNo: 1082704		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	66.8	35	113			
4-Chloro-3-methylphenol	130	10	200.0	0	64.5	40.7	114			
2-Chlorophenol	130	10	200.0	0	65.3	37.6	113			
1,4-Dichlorobenzene	53	10	100.0	0	53.0	37.7	106			
2,4-Dinitrotoluene	69	10	100.0	0	69.0	37	91			
N-Nitrosodi-n-propylamine	70	10	100.0	0	70.1	45.4	105			
4-Nitrophenol	71	10	200.0	0	35.6	33.4	104			
Pentachlorophenol	100	20	200.0	0	51.9	29.5	94.9			
Phenol	100	10	200.0	0	49.8	30.6	119			
Pyrene	72	10	100.0	0	72.1	26.2	120			
1,2,4-Trichlorobenzene	63	10	100.0	0	62.7	39.9	125			
Surr: 2-Fluorophenol	100		200.0		51.8	15	123			
Surr: Phenol-d5	100		200.0		49.8	4.13	124			
Surr: 2,4,6-Tribromophenol	130		200.0		63.6	18.4	134			
Surr: Nitrobenzene-d5	68		100.0		67.6	28.8	134			
Surr: 2-Fluorobiphenyl	64		100.0		63.6	35.9	125			
Surr: 4-Terphenyl-d14	77		100.0		76.7	15	146			

Qualifiers:

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

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1606617

RcptNo: 1

Received by/date: AF 06/10/14

Logged By: Anne Thorne 6/10/2016 3:35:00 PM

Anne Thorne

Completed By: Anne Thorne 6/13/2016

Anne Thorne

Reviewed By: *JA* 06/13/16

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

of preserved bottles checked for pH: 9
(≤ 2 or >12 unless noted)
Adjusted? YES
Checked by: *JA*

For METALS ANALYSIS: Added HNO_3 to COC for acceptable pH. Held for 24 hours prior to ANALYSIS. 06/13/16 @ 1010

Special Handling (if applicable)

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

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

18. Cooler Information

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

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)

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON/G VIGIL

On Ice: ☒ Yes ☐ No

Sample Temperature: 11°C

Container Type and #

Preservative Type

HEAL No.

8260+MTBE

8015D EXTENDED

B270 + Phenols

WQCC Metals - Total

WQCC Metals - Dissolved (Filtered)

MAJOR CATIONS/ANIONS

8011/504.1

At 06/13/14

Air Bubbles (Y or N)

Turn-Around Time:

X Standard ☐ Rush

Project Name:

2016 2ND QTR (MKTF)

Received by:

Date Time

Received by:

Date Time

Remarks:

6/10/16 12:00

6/10/16 1:30

6/10/16 3:35

6/10/16 1535

6/10/16 1314

6/10/16 1535



www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

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



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

October 25, 2016

Cheryl Johnson

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

RE: 2016 3RD QTR (OW)

OrderNo.: 1609A26

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 9/18/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609A26

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-55

Project: 2016 3RD QTR (OW)

Collection Date: 9/16/2016 10:15:00 AM

Lab ID: 1609A26-001

Matrix: AQUEOUS

Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	5.3	0.69	1.0		mg/L	1	9/20/2016 4:37:12 PM	27591
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/20/2016 4:37:12 PM	27591
Surr: DNOP	120	0	77.1-144		%Rec	1	9/20/2016 4:37:12 PM	27591
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED	
Barium	0.60	0.0013	0.0020		mg/L	1	10/13/2016 1:51:09 PM	C37932
Cadmium	ND	0.00075	0.0020		mg/L	1	10/13/2016 1:51:09 PM	C37932
Chromium	ND	0.0018	0.0060		mg/L	1	10/13/2016 1:51:09 PM	C37932
Copper	ND	0.0040	0.0060		mg/L	1	10/13/2016 1:51:09 PM	C37932
Iron	3.8	0.10	0.10	*	mg/L	5	10/13/2016 1:52:52 PM	C37932
Manganese	4.1	0.0016	0.010	*	mg/L	5	10/13/2016 1:52:52 PM	C37932
Silver	ND	0.0028	0.0050		mg/L	1	10/13/2016 1:51:09 PM	C37932
Zinc	0.0035	0.0028	0.010	J	mg/L	1	10/13/2016 1:51:09 PM	C37932
EPA METHOD 200.7: TOTAL METALS							Analyst: MED	
Barium	1.2	0.0040	0.010		mg/L	5	10/6/2016 5:44:15 PM	27884
Cadmium	ND	0.0015	0.0020		mg/L	1	10/5/2016 5:59:53 PM	27884
Chromium	0.0090	0.0027	0.0060		mg/L	1	10/5/2016 5:59:53 PM	27884
Copper	0.0094	0.0030	0.0060		mg/L	1	10/5/2016 5:59:53 PM	27884
Iron	13	0.40	0.40	*	mg/L	20	10/6/2016 5:51:54 PM	27884
Manganese	5.2	0.0055	0.040	*	mg/L	20	10/6/2016 5:51:54 PM	27884
Silver	ND	0.0015	0.0050		mg/L	1	10/6/2016 5:31:05 PM	27884
Zinc	0.066	0.0027	0.010		mg/L	1	10/5/2016 5:59:53 PM	27884
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0074	0.00014	0.0010		mg/L	1	9/30/2016 4:41:19 PM	C37623
Lead	0.00022	0.00017	0.00050	J	mg/L	1	9/30/2016 4:41:19 PM	C37623
Selenium	0.0082	0.00021	0.0010		mg/L	1	9/30/2016 4:41:19 PM	C37623
Uranium	0.0074	0.000051	0.00050		mg/L	1	9/30/2016 4:41:19 PM	C37623
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0078	0.0011	0.0050		mg/L	5	10/6/2016 6:07:55 PM	27884
Lead	0.024	0.000081	0.00050	*	mg/L	1	10/6/2016 5:52:48 PM	27884
Selenium	0.0038	0.00094	0.0050	J	mg/L	5	10/6/2016 6:07:55 PM	27884
Uranium	0.0094	0.00017	0.00050		mg/L	1	10/6/2016 5:52:48 PM	27884
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.00011	0.000053	0.00020	J	mg/L	1	9/29/2016 1:28:58 PM	27776
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Benzene	12000	96	1000		µg/L	1000	9/22/2016 4:37:39 PM	W37409
Toluene	4600	120	1000		µg/L	1000	9/22/2016 4:37:39 PM	W37409

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609A26

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-55

Project: 2016 3RD QTR (OW)

Collection Date: 9/16/2016 10:15:00 AM

Lab ID: 1609A26-001

Matrix: AQUEOUS

Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Ethylbenzene	950	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Methyl tert-butyl ether (MTBE)	1200	2.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2,4-Trimethylbenzene	880	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,3,5-Trimethylbenzene	280	1.2	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2-Dichloroethane (EDC)	5.6	1.2	10	J	µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Naphthalene	120	0.93	20		µg/L	10	9/21/2016 4:44:20 PM	R37365
1-Methylnaphthalene	30	2.0	40	J	µg/L	10	9/21/2016 4:44:20 PM	R37365
2-Methylnaphthalene	45	1.6	40		µg/L	10	9/21/2016 4:44:20 PM	R37365
Acetone	ND	49	100		µg/L	10	9/21/2016 4:44:20 PM	R37365
Bromobenzene	ND	0.98	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Bromodichloromethane	ND	1.4	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Bromoform	ND	1.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Bromomethane	ND	7.8	30		µg/L	10	9/21/2016 4:44:20 PM	R37365
2-Butanone	ND	7.4	100		µg/L	10	9/21/2016 4:44:20 PM	R37365
Carbon disulfide	ND	6.0	100		µg/L	10	9/21/2016 4:44:20 PM	R37365
Carbon Tetrachloride	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Chlorobenzene	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Chloroethane	ND	1.9	20		µg/L	10	9/21/2016 4:44:20 PM	R37365
Chloroform	ND	0.89	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Chloromethane	ND	2.1	30		µg/L	10	9/21/2016 4:44:20 PM	R37365
2-Chlorotoluene	ND	4.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
4-Chlorotoluene	ND	1.3	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
cis-1,2-DCE	ND	1.2	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	9/21/2016 4:44:20 PM	R37365
Dibromochloromethane	ND	0.87	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Dibromomethane	ND	1.2	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1-Dichloroethane	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1-Dichloroethene	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2-Dichloropropane	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,3-Dichloropropane	ND	1.6	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
2,2-Dichloropropane	ND	1.7	20		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1-Dichloropropene	ND	1.3	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Hexachlorobutadiene	ND	2.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609A26

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-55

Project: 2016 3RD QTR (OW)

Collection Date: 9/16/2016 10:15:00 AM

Lab ID: 1609A26-001

Matrix: AQUEOUS

Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
2-Hexanone	ND	8.4	100		µg/L	10	9/21/2016 4:44:20 PM	R37365
Isopropylbenzene	35	1.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
4-Isopropyltoluene	5.9	1.4	10	J	µg/L	10	9/21/2016 4:44:20 PM	R37365
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	9/21/2016 4:44:20 PM	R37365
Methylene Chloride	ND	1.9	30		µg/L	10	9/21/2016 4:44:20 PM	R37365
n-Butylbenzene	17	1.6	30	J	µg/L	10	9/21/2016 4:44:20 PM	R37365
n-Propylbenzene	120	1.3	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
sec-Butylbenzene	9.3	1.2	10	J	µg/L	10	9/21/2016 4:44:20 PM	R37365
Styrene	4.1	1.1	10	J	µg/L	10	9/21/2016 4:44:20 PM	R37365
tert-Butylbenzene	ND	1.2	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	9/21/2016 4:44:20 PM	R37365
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
trans-1,2-DCE	ND	4.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Trichlorofluoromethane	ND	2.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	9/21/2016 4:44:20 PM	R37365
Vinyl chloride	ND	2.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Xylenes, Total	4500	370	1500		µg/L	1000	9/22/2016 4:37:39 PM	W37409
Surr: 1,2-Dichloroethane-d4	89.7	0	70-130		%Rec	10	9/21/2016 4:44:20 PM	R37365
Surr: 4-Bromofluorobenzene	77.6	0	70-130		%Rec	10	9/21/2016 4:44:20 PM	R37365
Surr: Dibromofluoromethane	82.8	0	70-130		%Rec	10	9/21/2016 4:44:20 PM	R37365
Surr: Toluene-d8	93.9	0	70-130		%Rec	10	9/21/2016 4:44:20 PM	R37365
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG	
Gasoline Range Organics (GRO)	76	0.15	0.50		mg/L	10	9/21/2016 4:44:20 PM	W37365
Surr: BFB	103	0	70-130		%Rec	10	9/21/2016 4:44:20 PM	W37365

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609A26

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB091616

Project: 2016 3RD QTR (OW)

Collection Date: 9/16/2016 10:30:00 AM

Lab ID: 1609A26-002

Matrix: AQUEOUS

Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/20/2016 5:41:47 PM	27591
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/20/2016 5:41:47 PM	27591
Surr: DNOP	127	0	77.1-144		%Rec	1	9/20/2016 5:41:47 PM	27591
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED	
Barium	ND	0.0013	0.0020		mg/L	1	10/13/2016 1:54:57 PM	C37932
Cadmium	ND	0.00075	0.0020		mg/L	1	10/13/2016 1:54:57 PM	C37932
Chromium	ND	0.0018	0.0060		mg/L	1	10/13/2016 1:54:57 PM	C37932
Copper	ND	0.0040	0.0060		mg/L	1	10/13/2016 1:54:57 PM	C37932
Iron	ND	0.020	0.020		mg/L	1	10/13/2016 1:54:57 PM	C37932
Manganese	ND	0.00032	0.0020		mg/L	1	10/13/2016 1:54:57 PM	C37932
Silver	ND	0.0028	0.0050		mg/L	1	10/13/2016 1:54:57 PM	C37932
Zinc	ND	0.0028	0.010		mg/L	1	10/13/2016 1:54:57 PM	C37932
EPA METHOD 200.7: TOTAL METALS							Analyst: MED	
Barium	ND	0.00079	0.0020		mg/L	1	10/5/2016 6:05:27 PM	27884
Cadmium	ND	0.0015	0.0020		mg/L	1	10/5/2016 6:05:27 PM	27884
Chromium	ND	0.0027	0.0060		mg/L	1	10/5/2016 6:05:27 PM	27884
Copper	ND	0.0030	0.0060		mg/L	1	10/5/2016 6:05:27 PM	27884
Iron	ND	0.020	0.020		mg/L	1	10/5/2016 6:05:27 PM	27884
Manganese	ND	0.00027	0.0020		mg/L	1	10/5/2016 6:05:27 PM	27884
Silver	ND	0.0015	0.0050		mg/L	1	10/5/2016 6:05:27 PM	27884
Zinc	ND	0.0027	0.010		mg/L	1	10/5/2016 6:05:27 PM	27884
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	ND	0.00014	0.0010		mg/L	1	9/30/2016 4:44:23 PM	C37623
Lead	ND	0.00017	0.00050		mg/L	1	9/30/2016 4:44:23 PM	C37623
Selenium	ND	0.00021	0.0010		mg/L	1	9/30/2016 4:44:23 PM	C37623
Uranium	ND	0.000051	0.00050		mg/L	1	9/30/2016 4:44:23 PM	C37623
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	ND	0.00021	0.0010		mg/L	1	10/6/2016 5:55:48 PM	27884
Lead	ND	0.000081	0.00050		mg/L	1	10/6/2016 5:55:48 PM	27884
Selenium	ND	0.00019	0.0010		mg/L	1	10/6/2016 5:55:48 PM	27884
Uranium	ND	0.00017	0.00050		mg/L	1	10/6/2016 5:55:48 PM	27884
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.000097	0.000053	0.00020	J	mg/L	1	9/29/2016 1:31:03 PM	27776
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Benzene	ND	0.096	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Toluene	0.37	0.12	1.0	J	µg/L	1	9/22/2016 11:20:14 AM	W37409

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609A26

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB091616

Project: 2016 3RD QTR (OW)

Collection Date: 9/16/2016 10:30:00 AM

Lab ID: 1609A26-002

Matrix: AQUEOUS

Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Naphthalene	ND	0.093	2.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Acetone	7.6	4.9	10	J	µg/L	1	9/22/2016 11:20:14 AM	W37409
Bromobenzene	ND	0.098	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Bromoform	ND	0.10	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Bromomethane	ND	0.78	3.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
2-Butanone	0.91	0.74	10	J	µg/L	1	9/22/2016 11:20:14 AM	W37409
Carbon disulfide	ND	0.60	10		µg/L	1	9/22/2016 11:20:14 AM	W37409
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Chloroethane	ND	0.19	2.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Chloroform	ND	0.089	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Chloromethane	ND	0.21	3.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Dibromomethane	ND	0.12	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609A26

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB091616

Project: 2016 3RD QTR (OW)

Collection Date: 9/16/2016 10:30:00 AM

Lab ID: 1609A26-002

Matrix: AQUEOUS

Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
2-Hexanone	ND	0.84	10		µg/L	1	9/22/2016 11:20:14 AM	W37409
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/22/2016 11:20:14 AM	W37409
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Styrene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/22/2016 11:20:14 AM	W37409
Surr: 1,2-Dichloroethane-d4	95.6	0	70-130		%Rec	1	9/22/2016 11:20:14 AM	W37409
Surr: 4-Bromofluorobenzene	100	0	70-130		%Rec	1	9/22/2016 11:20:14 AM	W37409
Surr: Dibromofluoromethane	104	0	70-130		%Rec	1	9/22/2016 11:20:14 AM	W37409
Surr: Toluene-d8	101	0	70-130		%Rec	1	9/22/2016 11:20:14 AM	W37409
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG	
Gasoline Range Organics (GRO)	0.037	0.015	0.050	J	mg/L	1	9/21/2016 5:13:07 PM	W37365
Surr: BFB	100	0	70-130		%Rec	1	9/21/2016 5:13:07 PM	W37365

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609A26

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-56

Project: 2016 3RD QTR (OW)

Collection Date: 9/16/2016 8:10:00 AM

Lab ID: 1609A26-003

Matrix: AQUEOUS

Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	0.77	0.69	1.0	J	mg/L	1	9/20/2016 6:03:27 PM	27591
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/20/2016 6:03:27 PM	27591
Surr: DNOP	128	0	77.1-144		%Rec	1	9/20/2016 6:03:27 PM	27591
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED	
Barium	0.36	0.0013	0.0020		mg/L	1	10/13/2016 1:58:42 PM	C37932
Cadmium	ND	0.00075	0.0020		mg/L	1	10/13/2016 1:58:42 PM	C37932
Chromium	ND	0.0018	0.0060		mg/L	1	10/13/2016 1:58:42 PM	C37932
Copper	0.0047	0.0040	0.0060	J	mg/L	1	10/13/2016 1:58:42 PM	C37932
Iron	0.078	0.020	0.020		mg/L	1	10/13/2016 1:58:42 PM	C37932
Manganese	0.39	0.00032	0.0020	*	mg/L	1	10/13/2016 1:58:42 PM	C37932
Silver	ND	0.0028	0.0050		mg/L	1	10/13/2016 1:58:42 PM	C37932
Zinc	0.011	0.0028	0.010		mg/L	1	10/13/2016 1:58:42 PM	C37932
EPA METHOD 200.7: TOTAL METALS							Analyst: MED	
Barium	0.37	0.00079	0.0020		mg/L	1	10/5/2016 6:11:17 PM	27884
Cadmium	ND	0.0015	0.0020		mg/L	1	10/5/2016 6:11:17 PM	27884
Chromium	ND	0.0027	0.0060		mg/L	1	10/5/2016 6:11:17 PM	27884
Copper	0.0049	0.0030	0.0060	J	mg/L	1	10/5/2016 6:11:17 PM	27884
Iron	0.33	0.020	0.020	*	mg/L	1	10/5/2016 6:11:17 PM	27884
Manganese	0.42	0.00027	0.0020	*	mg/L	1	10/5/2016 6:11:17 PM	27884
Silver	ND	0.0015	0.0050		mg/L	1	10/5/2016 6:11:17 PM	27884
Zinc	0.012	0.0027	0.010		mg/L	1	10/5/2016 6:11:17 PM	27884
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0049	0.00069	0.0050	J	mg/L	5	10/7/2016 6:19:29 PM	C37789
Lead	0.00046	0.00017	0.00050	J	mg/L	1	9/30/2016 4:53:38 PM	C37623
Selenium	0.0046	0.0042	0.020	J	mg/L	20	10/7/2016 6:22:33 PM	C37789
Uranium	0.023	0.000051	0.00050		mg/L	1	9/30/2016 4:53:38 PM	C37623
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0046	0.0021	0.010	J	mg/L	10	10/7/2016 11:02:58 AM	27884
Lead	0.0010	0.000081	0.00050		mg/L	1	10/6/2016 6:10:57 PM	27884
Selenium	0.0046	0.0019	0.010	J	mg/L	10	10/7/2016 11:02:58 AM	27884
Uranium	0.024	0.00087	0.0025		mg/L	5	10/7/2016 10:56:57 AM	27884
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.00010	0.000053	0.00020	J	mg/L	1	9/29/2016 1:33:10 PM	27776
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Benzene	2.5	0.48	5.0	JD	µg/L	5	9/21/2016 6:39:35 PM	R37365
Toluene	0.92	0.59	5.0	JD	µg/L	5	9/21/2016 6:39:35 PM	R37365

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609A26

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-56

Project: 2016 3RD QTR (OW)

Collection Date: 9/16/2016 8:10:00 AM

Lab ID: 1609A26-003

Matrix: AQUEOUS

Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Ethylbenzene	ND	0.56	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Methyl tert-butyl ether (MTBE)	150	1.1	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2,4-Trimethylbenzene	1.1	0.55	5.0	JD	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,3,5-Trimethylbenzene	ND	0.58	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2-Dichloroethane (EDC)	16	0.58	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2-Dibromoethane (EDB)	ND	0.56	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Naphthalene	ND	0.46	10	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1-Methylnaphthalene	ND	1.0	20	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
2-Methylnaphthalene	ND	0.79	20	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Acetone	ND	25	50	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Bromobenzene	ND	0.49	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Bromodichloromethane	ND	0.70	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Bromoform	ND	0.51	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Bromomethane	ND	3.9	15	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
2-Butanone	ND	3.7	50	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Carbon disulfide	ND	3.0	50	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Carbon Tetrachloride	ND	0.54	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Chlorobenzene	ND	0.57	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Chloroethane	ND	0.96	10	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Chloroform	ND	0.44	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Chloromethane	ND	1.1	15	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
2-Chlorotoluene	ND	2.0	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
4-Chlorotoluene	ND	0.64	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
cis-1,2-DCE	ND	0.62	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
cis-1,3-Dichloropropene	ND	0.53	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2-Dibromo-3-chloropropane	ND	1.2	10	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Dibromochloromethane	ND	0.43	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Dibromomethane	ND	0.60	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2-Dichlorobenzene	ND	2.0	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,3-Dichlorobenzene	ND	0.72	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,4-Dichlorobenzene	ND	0.71	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Dichlorodifluoromethane	ND	1.8	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1-Dichloroethane	ND	0.54	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1-Dichloroethene	ND	0.54	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2-Dichloropropane	ND	0.55	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,3-Dichloropropane	ND	0.78	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
2,2-Dichloropropane	ND	0.83	10	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1-Dichloropropene	ND	0.67	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Hexachlorobutadiene	ND	0.99	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609A26

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-56

Project: 2016 3RD QTR (OW)

Collection Date: 9/16/2016 8:10:00 AM

Lab ID: 1609A26-003

Matrix: AQUEOUS

Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
2-Hexanone	ND	4.2	50	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Isopropylbenzene	1.1	0.52	5.0	JD	µg/L	5	9/21/2016 6:39:35 PM	R37365
4-Isopropyltoluene	ND	0.70	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
4-Methyl-2-pentanone	ND	2.1	50	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Methylene Chloride	ND	0.94	15	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
n-Butylbenzene	ND	0.80	15	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
n-Propylbenzene	ND	0.66	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
sec-Butylbenzene	ND	0.62	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Styrene	ND	0.55	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
tert-Butylbenzene	ND	0.58	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1,1,2-Tetrachloroethane	ND	0.56	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1,2,2-Tetrachloroethane	ND	0.64	10	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Tetrachloroethene (PCE)	ND	0.76	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
trans-1,2-DCE	ND	2.0	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
trans-1,3-Dichloropropene	ND	0.52	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2,3-Trichlorobenzene	ND	0.56	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2,4-Trichlorobenzene	ND	0.66	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1,1-Trichloroethane	ND	0.46	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1,2-Trichloroethane	ND	0.64	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Trichloroethene (TCE)	ND	0.88	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Trichlorofluoromethane	ND	1.0	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2,3-Trichloropropane	ND	1.0	10	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Vinyl chloride	ND	0.98	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Xylenes, Total	ND	1.8	7.5	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Surr: 1,2-Dichloroethane-d4	94.5	0	70-130	D	%Rec	5	9/21/2016 6:39:35 PM	R37365
Surr: 4-Bromofluorobenzene	99.3	0	70-130	D	%Rec	5	9/21/2016 6:39:35 PM	R37365
Surr: Dibromofluoromethane	94.9	0	70-130	D	%Rec	5	9/21/2016 6:39:35 PM	R37365
Surr: Toluene-d8	97.1	0	70-130	D	%Rec	5	9/21/2016 6:39:35 PM	R37365
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG	
Gasoline Range Organics (GRO)	1.2	0.075	0.25		mg/L	5	9/21/2016 6:39:35 PM	W37365
Surr: BFB	99.3	0	70-130		%Rec	5	9/21/2016 6:39:35 PM	W37365

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609A26

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-54

Project: 2016 3RD QTR (OW)

Collection Date: 9/16/2016 9:40:00 AM

Lab ID: 1609A26-004

Matrix: AQUEOUS

Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	1.6	0.69	1.0		mg/L	1	9/20/2016 6:25:00 PM	27591
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/20/2016 6:25:00 PM	27591
Surr: DNOP	124	0	77.1-144		%Rec	1	9/20/2016 6:25:00 PM	27591
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED	
Barium	0.14	0.0013	0.0020		mg/L	1	10/13/2016 2:02:44 PM	C37932
Cadmium	ND	0.00075	0.0020		mg/L	1	10/13/2016 2:02:44 PM	C37932
Chromium	ND	0.0018	0.0060		mg/L	1	10/13/2016 2:02:44 PM	C37932
Copper	0.0088	0.0040	0.0060		mg/L	1	10/13/2016 2:02:44 PM	C37932
Iron	0.23	0.020	0.020		mg/L	1	10/13/2016 2:02:44 PM	C37932
Manganese	1.3	0.0016	0.010	*	mg/L	5	10/13/2016 2:04:44 PM	C37932
Silver	ND	0.0028	0.0050		mg/L	1	10/13/2016 2:02:44 PM	C37932
Zinc	0.0035	0.0028	0.010	J	mg/L	1	10/13/2016 2:02:44 PM	C37932
EPA METHOD 200.7: TOTAL METALS							Analyst: MED	
Barium	1.1	0.0040	0.010		mg/L	5	10/6/2016 5:53:56 PM	27884
Cadmium	ND	0.0015	0.0020		mg/L	1	10/5/2016 6:18:57 PM	27884
Chromium	0.013	0.0027	0.0060		mg/L	1	10/5/2016 6:18:57 PM	27884
Copper	0.032	0.0030	0.0060		mg/L	1	10/5/2016 6:18:57 PM	27884
Iron	11	0.40	0.40	*	mg/L	20	10/6/2016 5:55:45 PM	27884
Manganese	2.3	0.0014	0.010	*	mg/L	5	10/6/2016 5:53:56 PM	27884
Silver	ND	0.0015	0.0050		mg/L	1	10/5/2016 6:18:57 PM	27884
Zinc	0.036	0.0027	0.010		mg/L	1	10/5/2016 6:18:57 PM	27884
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0049	0.00069	0.0050	J	mg/L	5	10/7/2016 6:25:36 PM	C37789
Lead	0.0052	0.00017	0.00050		mg/L	1	9/30/2016 4:56:41 PM	C37623
Selenium	0.0068	0.0042	0.020	J	mg/L	20	10/7/2016 6:28:40 PM	C37789
Uranium	0.062	0.00026	0.0025	*	mg/L	5	10/7/2016 6:25:36 PM	C37789
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0057	0.0021	0.010	J	mg/L	10	10/7/2016 11:21:05 AM	27884
Lead	0.032	0.00041	0.0025	*	mg/L	5	10/7/2016 11:05:59 AM	27884
Selenium	0.0063	0.0019	0.010	J	mg/L	10	10/7/2016 11:21:05 AM	27884
Uranium	0.065	0.00087	0.0025	*	mg/L	5	10/7/2016 11:05:59 AM	27884
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.00013	0.000053	0.00020	J	mg/L	1	9/29/2016 1:35:16 PM	27776
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Benzene	100	0.48	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Toluene	8.0	0.59	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365

Refer to the QC Summary report and 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-54

Project: 2016 3RD QTR (OW)

Collection Date: 9/16/2016 9:40:00 AM

Lab ID: 1609A26-004

Matrix: AQUEOUS

Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Ethylbenzene	29	0.56	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Methyl tert-butyl ether (MTBE)	2000	11	50		µg/L	50	9/22/2016 5:06:24 PM	W37409
1,2,4-Trimethylbenzene	15	0.55	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,3,5-Trimethylbenzene	6.5	0.58	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Naphthalene	4.2	0.46	10	J	µg/L	5	9/21/2016 7:08:24 PM	R37365
1-Methylnaphthalene	ND	1.0	20		µg/L	5	9/21/2016 7:08:24 PM	R37365
2-Methylnaphthalene	ND	0.79	20		µg/L	5	9/21/2016 7:08:24 PM	R37365
Acetone	ND	25	50		µg/L	5	9/21/2016 7:08:24 PM	R37365
Bromobenzene	ND	0.49	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Bromodichloromethane	ND	0.70	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Bromoform	ND	0.51	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Bromomethane	ND	3.9	15		µg/L	5	9/21/2016 7:08:24 PM	R37365
2-Butanone	ND	3.7	50		µg/L	5	9/21/2016 7:08:24 PM	R37365
Carbon disulfide	ND	3.0	50		µg/L	5	9/21/2016 7:08:24 PM	R37365
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Chlorobenzene	ND	0.57	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Chloroethane	ND	0.96	10		µg/L	5	9/21/2016 7:08:24 PM	R37365
Chloroform	ND	0.44	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Chloromethane	ND	1.1	15		µg/L	5	9/21/2016 7:08:24 PM	R37365
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	9/21/2016 7:08:24 PM	R37365
Dibromochloromethane	ND	0.43	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Dibromomethane	ND	0.60	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
2,2-Dichloropropane	ND	0.83	10		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609A26

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-54

Project: 2016 3RD QTR (OW)

Collection Date: 9/16/2016 9:40:00 AM

Lab ID: 1609A26-004

Matrix: AQUEOUS

Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
2-Hexanone	ND	4.2	50		µg/L	5	9/21/2016 7:08:24 PM	R37365
Isopropylbenzene	1.2	0.52	5.0	J	µg/L	5	9/21/2016 7:08:24 PM	R37365
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	9/21/2016 7:08:24 PM	R37365
Methylene Chloride	ND	0.94	15		µg/L	5	9/21/2016 7:08:24 PM	R37365
n-Butylbenzene	ND	0.80	15		µg/L	5	9/21/2016 7:08:24 PM	R37365
n-Propylbenzene	3.7	0.66	5.0	J	µg/L	5	9/21/2016 7:08:24 PM	R37365
sec-Butylbenzene	1.7	0.62	5.0	J	µg/L	5	9/21/2016 7:08:24 PM	R37365
Styrene	ND	0.55	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	9/21/2016 7:08:24 PM	R37365
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	9/21/2016 7:08:24 PM	R37365
Vinyl chloride	ND	0.98	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Xylenes, Total	28	1.8	7.5		µg/L	5	9/21/2016 7:08:24 PM	R37365
Surr: 1,2-Dichloroethane-d4	89.8	0	70-130		%Rec	5	9/21/2016 7:08:24 PM	R37365
Surr: 4-Bromofluorobenzene	95.3	0	70-130		%Rec	5	9/21/2016 7:08:24 PM	R37365
Surr: Dibromofluoromethane	86.0	0	70-130		%Rec	5	9/21/2016 7:08:24 PM	R37365
Surr: Toluene-d8	98.4	0	70-130		%Rec	5	9/21/2016 7:08:24 PM	R37365
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG	
Gasoline Range Organics (GRO)	3.2	0.075	0.25		mg/L	5	9/21/2016 7:08:24 PM	W37365
Surr: BFB	100	0	70-130		%Rec	5	9/21/2016 7:08:24 PM	W37365

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609A26

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: DUP06

Project: 2016 3RD QTR (OW)

Collection Date: 9/16/2016

Lab ID: 1609A26-005

Matrix: AQUEOUS

Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	1.7	0.69	1.0		mg/L	1	9/20/2016 6:46:40 PM	27591
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/20/2016 6:46:40 PM	27591
Surr: DNOP	129	0	77.1-144		%Rec	1	9/20/2016 6:46:40 PM	27591
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED	
Barium	0.14	0.0013	0.0020		mg/L	1	10/13/2016 2:12:36 PM	C37932
Cadmium	ND	0.00075	0.0020		mg/L	1	10/13/2016 2:12:36 PM	C37932
Chromium	ND	0.0018	0.0060		mg/L	1	10/13/2016 2:12:36 PM	C37932
Copper	0.0093	0.0040	0.0060		mg/L	1	10/13/2016 2:12:36 PM	C37932
Iron	0.24	0.020	0.020		mg/L	1	10/13/2016 2:12:36 PM	C37932
Manganese	1.4	0.0016	0.010	*	mg/L	5	10/13/2016 2:14:41 PM	C37932
Silver	ND	0.0028	0.0050		mg/L	1	10/13/2016 2:12:36 PM	C37932
Zinc	0.0035	0.0028	0.010	J	mg/L	1	10/13/2016 2:12:36 PM	C37932
EPA METHOD 200.7: TOTAL METALS							Analyst: MED	
Barium	1.3	0.0040	0.010		mg/L	5	10/6/2016 5:57:44 PM	27884
Cadmium	ND	0.0015	0.0020		mg/L	1	10/5/2016 6:20:48 PM	27884
Chromium	0.017	0.0027	0.0060		mg/L	1	10/5/2016 6:20:48 PM	27884
Copper	0.036	0.0030	0.0060		mg/L	1	10/5/2016 6:20:48 PM	27884
Iron	14	0.40	0.40	*	mg/L	20	10/6/2016 6:05:16 PM	27884
Manganese	2.4	0.0014	0.010	*	mg/L	5	10/6/2016 5:57:44 PM	27884
Silver	ND	0.0015	0.0050		mg/L	1	10/5/2016 6:20:48 PM	27884
Zinc	0.039	0.0027	0.010		mg/L	1	10/5/2016 6:20:48 PM	27884
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0049	0.00069	0.0050	J	mg/L	5	10/7/2016 6:31:43 PM	C37789
Lead	0.0053	0.00017	0.00050		mg/L	1	9/30/2016 4:59:45 PM	C37623
Selenium	0.0083	0.0042	0.020	J	mg/L	20	10/7/2016 6:40:58 PM	C37789
Uranium	0.063	0.00026	0.0025	*	mg/L	5	10/7/2016 6:31:43 PM	C37789
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0058	0.0021	0.010	J	mg/L	10	10/7/2016 11:27:06 AM	27884
Lead	0.036	0.00041	0.0025	*	mg/L	5	10/7/2016 11:24:06 AM	27884
Selenium	0.0070	0.0019	0.010	J	mg/L	10	10/7/2016 11:27:06 AM	27884
Uranium	0.066	0.00087	0.0025	*	mg/L	5	10/7/2016 11:24:06 AM	27884
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.00013	0.000053	0.00020	J	mg/L	1	9/29/2016 1:37:23 PM	27776
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Benzene	110	0.96	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Toluene	9.8	1.2	10	J	µg/L	10	9/21/2016 7:37:10 PM	R37365

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609A26

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: DUP06

Project: 2016 3RD QTR (OW)

Collection Date: 9/16/2016

Lab ID: 1609A26-005

Matrix: AQUEOUS

Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Ethylbenzene	29	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Methyl tert-butyl ether (MTBE)	1900	21	100		µg/L	100	9/22/2016 5:35:14 PM	W37409
1,2,4-Trimethylbenzene	14	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,3,5-Trimethylbenzene	7.1	1.2	10	J	µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2-Dichloroethane (EDC)	ND	1.2	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Naphthalene	5.5	0.93	20	J	µg/L	10	9/21/2016 7:37:10 PM	R37365
1-Methylnaphthalene	ND	2.0	40		µg/L	10	9/21/2016 7:37:10 PM	R37365
2-Methylnaphthalene	ND	1.6	40		µg/L	10	9/21/2016 7:37:10 PM	R37365
Acetone	ND	49	100		µg/L	10	9/21/2016 7:37:10 PM	R37365
Bromobenzene	ND	0.98	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Bromodichloromethane	ND	1.4	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Bromoform	ND	1.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Bromomethane	ND	7.8	30		µg/L	10	9/21/2016 7:37:10 PM	R37365
2-Butanone	ND	7.4	100		µg/L	10	9/21/2016 7:37:10 PM	R37365
Carbon disulfide	ND	6.0	100		µg/L	10	9/21/2016 7:37:10 PM	R37365
Carbon Tetrachloride	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Chlorobenzene	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Chloroethane	ND	1.9	20		µg/L	10	9/21/2016 7:37:10 PM	R37365
Chloroform	ND	0.89	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Chloromethane	ND	2.1	30		µg/L	10	9/21/2016 7:37:10 PM	R37365
2-Chlorotoluene	ND	4.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
4-Chlorotoluene	ND	1.3	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
cis-1,2-DCE	ND	1.2	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	9/21/2016 7:37:10 PM	R37365
Dibromochloromethane	ND	0.87	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Dibromomethane	ND	1.2	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1-Dichloroethane	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1-Dichloroethene	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2-Dichloropropane	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,3-Dichloropropane	ND	1.6	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
2,2-Dichloropropane	ND	1.7	20		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1-Dichloropropene	ND	1.3	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Hexachlorobutadiene	ND	2.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609A26

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: DUP06

Project: 2016 3RD QTR (OW)

Collection Date: 9/16/2016

Lab ID: 1609A26-005

Matrix: AQUEOUS

Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
2-Hexanone	ND	8.4	100		µg/L	10	9/21/2016 7:37:10 PM	R37365
Isopropylbenzene	1.6	1.0	10	J	µg/L	10	9/21/2016 7:37:10 PM	R37365
4-Isopropyltoluene	ND	1.4	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	9/21/2016 7:37:10 PM	R37365
Methylene Chloride	ND	1.9	30		µg/L	10	9/21/2016 7:37:10 PM	R37365
n-Butylbenzene	ND	1.6	30		µg/L	10	9/21/2016 7:37:10 PM	R37365
n-Propylbenzene	3.8	1.3	10	J	µg/L	10	9/21/2016 7:37:10 PM	R37365
sec-Butylbenzene	2.6	1.2	10	J	µg/L	10	9/21/2016 7:37:10 PM	R37365
Styrene	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
tert-Butylbenzene	ND	1.2	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	9/21/2016 7:37:10 PM	R37365
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
trans-1,2-DCE	ND	4.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Trichlorofluoromethane	ND	2.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	9/21/2016 7:37:10 PM	R37365
Vinyl chloride	ND	2.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Xylenes, Total	31	3.7	15		µg/L	10	9/21/2016 7:37:10 PM	R37365
Surr: 1,2-Dichloroethane-d4	96.5	0	70-130		%Rec	10	9/21/2016 7:37:10 PM	R37365
Surr: 4-Bromofluorobenzene	95.4	0	70-130		%Rec	10	9/21/2016 7:37:10 PM	R37365
Surr: Dibromofluoromethane	90.5	0	70-130		%Rec	10	9/21/2016 7:37:10 PM	R37365
Surr: Toluene-d8	99.1	0	70-130		%Rec	10	9/21/2016 7:37:10 PM	R37365
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG	
Gasoline Range Organics (GRO)	3.4	0.15	0.50		mg/L	10	9/21/2016 7:37:10 PM	W37365
Surr: BFB	101	0	70-130		%Rec	10	9/21/2016 7:37:10 PM	W37365

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609A26

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2016 3RD QTR (OW)

Collection Date:

Lab ID: 1609A26-006

Matrix: AQUEOUS

Received Date: 9/18/2016 2:00:00 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	9/21/2016 8:05:54 PM	R37365
Toluene	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Naphthalene	ND	0.093	2.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Acetone	ND	4.9	10		µg/L	1	9/21/2016 8:05:54 PM	R37365
Bromobenzene	ND	0.098	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Bromoform	ND	0.10	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Bromomethane	ND	0.78	3.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
2-Butanone	ND	0.74	10		µg/L	1	9/21/2016 8:05:54 PM	R37365
Carbon disulfide	ND	0.60	10		µg/L	1	9/21/2016 8:05:54 PM	R37365
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Chloroethane	ND	0.19	2.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Chloroform	ND	0.089	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Chloromethane	ND	0.21	3.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Dibromomethane	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/21/2016 8:05:54 PM	R37365

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609A26

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2016 3RD QTR (OW)

Collection Date:

Lab ID: 1609A26-006

Matrix: AQUEOUS

Received Date: 9/18/2016 2:00:00 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	9/21/2016 8:05:54 PM	R37365
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
2-Hexanone	ND	0.84	10		µg/L	1	9/21/2016 8:05:54 PM	R37365
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/21/2016 8:05:54 PM	R37365
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Styrene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/21/2016 8:05:54 PM	R37365
Surr: 1,2-Dichloroethane-d4	96.9	0	70-130		%Rec	1	9/21/2016 8:05:54 PM	R37365
Surr: 4-Bromofluorobenzene	94.4	0	70-130		%Rec	1	9/21/2016 8:05:54 PM	R37365
Surr: Dibromofluoromethane	96.8	0	70-130		%Rec	1	9/21/2016 8:05:54 PM	R37365
Surr: Toluene-d8	99.8	0	70-130		%Rec	1	9/21/2016 8:05:54 PM	R37365
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/21/2016 8:05:54 PM	W37365
Surr: BFB	96.8	0	70-130		%Rec	1	9/21/2016 8:05:54 PM	W37365

Refer to the QC Summary report and 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#: 1609A26

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID MB-C	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PBW	Batch ID: C37932		RunNo: 37932							
Prep Date:	Analysis Date: 10/13/2016		SeqNo: 1181916		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 LLCS-C	SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: C37932		RunNo: 37932							
Prep Date:	Analysis Date: 10/13/2016		SeqNo: 1181917		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0023	0.0020	0.002000	0	116	50	150			
Cadmium	0.0020	0.0020	0.002000	0	102	50	150			
Chromium	0.0056	0.0060	0.006000	0	93.2	50	150			J
Manganese	0.0018	0.0020	0.002000	0	92.0	50	150			J
Silver	0.0046	0.0050	0.005000	0	91.4	50	150			J
Zinc	0.0051	0.010	0.005000	0	102	50	150			J

Sample ID LCS-C	SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: LCSW	Batch ID: C37932		RunNo: 37932							
Prep Date:	Analysis Date: 10/13/2016		SeqNo: 1181921		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.4	85	115			
Cadmium	0.49	0.0020	0.5000	0	97.6	85	115			
Chromium	0.48	0.0060	0.5000	0	95.2	85	115			
Copper	0.49	0.0060	0.5000	0	97.3	85	115			
Iron	0.48	0.020	0.5000	0	96.6	85	115			
Manganese	0.47	0.0020	0.5000	0	93.2	85	115			
Silver	0.093	0.0050	0.1000	0	93.1	85	115			
Zinc	0.46	0.010	0.5000	0	92.5	85	115			

Sample ID LLCS-C	SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: BatchQC	Batch ID: C37932		RunNo: 37932							
Prep Date:	Analysis Date: 10/13/2016		SeqNo: 1181938		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#: 1609A26

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	LLLCS-C		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: C37932		RunNo: 37932					
Prep Date:			Analysis Date: 10/13/2016		SeqNo: 1181938		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0086	0.0060	0.006000	0	143	50	150			
Iron	0.017	0.020	0.02000	0	84.8	50	150			J

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609A26

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	MB-27884		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	27884		RunNo:	37699			
Prep Date:	10/4/2016		Analysis Date:	10/5/2016		SeqNo:	1174527	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-27884		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	27884		RunNo:	37699			
Prep Date:	10/4/2016		Analysis Date:	10/5/2016		SeqNo:	1174528	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0	94.6	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Chromium	0.47	0.0060	0.5000	0	94.7	85	115			
Copper	0.47	0.0060	0.5000	0	93.9	85	115			
Iron	0.47	0.020	0.5000	0	93.3	85	115			
Manganese	0.46	0.0020	0.5000	0	92.7	85	115			
Silver	0.096	0.0050	0.1000	0	95.6	85	115			
Zinc	0.47	0.010	0.5000	0	94.5	85	115			

Sample ID	LLCS-27884		SampType:	LCSLL		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	BatchQC		Batch ID:	27884		RunNo:	37699			
Prep Date:	10/4/2016		Analysis Date:	10/5/2016		SeqNo:	1174529	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0015	0.0020	0.002000	0	77.0	50	150			J
Cadmium	0.0016	0.0020	0.002000	0	82.5	50	150			J
Chromium	0.0056	0.0060	0.006000	0	93.3	50	150			J
Copper	0.0063	0.0060	0.006000	0	105	50	150			J
Manganese	0.0019	0.0020	0.002000	0	95.5	50	150			J
Silver	0.0042	0.0050	0.005000	0	83.4	50	150			J
Zinc	0.0050	0.010	0.005000	0	100	50	150			J

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609A26

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	LLLCS-27884		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 27884		RunNo: 37699					
Prep Date:	10/4/2016		Analysis Date: 10/5/2016		SeqNo: 1174530		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.021	0.020	0.02000	0	104	50	150			

Sample ID	1609A26-001DMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	OW-55		Batch ID: 27884		RunNo: 37699					
Prep Date:	10/4/2016		Analysis Date: 10/5/2016		SeqNo: 1174650		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.49	0.0020	0.5000	0	97.9	70	130			
Chromium	0.48	0.0060	0.5000	0.008990	94.8	70	130			
Copper	0.50	0.0060	0.5000	0.009430	97.2	70	130			
Zinc	0.50	0.010	0.5000	0.06576	86.3	70	130			

Sample ID	1609A26-001DMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	OW-55		Batch ID: 27884		RunNo: 37699					
Prep Date:	10/4/2016		Analysis Date: 10/5/2016		SeqNo: 1174651		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.49	0.0020	0.5000	0	98.1	70	130	0.261	20	
Chromium	0.48	0.0060	0.5000	0.008990	94.6	70	130	0.215	20	
Copper	0.50	0.0060	0.5000	0.009430	97.3	70	130	0.149	20	
Zinc	0.50	0.010	0.5000	0.06576	85.9	70	130	0.385	20	

Sample ID	1609A26-002DMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	FB091616		Batch ID: 27884		RunNo: 37699					
Prep Date:	10/4/2016		Analysis Date: 10/5/2016		SeqNo: 1174653		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	96.2	70	130			
Cadmium	0.49	0.0020	0.5000	0	98.3	70	130			
Chromium	0.48	0.0060	0.5000	0	95.8	70	130			
Copper	0.47	0.0060	0.5000	0	93.5	70	130			
Iron	0.48	0.020	0.5000	0	96.4	70	130			
Manganese	0.47	0.0020	0.5000	0	94.0	70	130			
Silver	0.099	0.0050	0.1000	0	99.1	70	130			
Zinc	0.49	0.010	0.5000	0	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#: 1609A26

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	1609A26-002DMSD			SampType:	MSD		TestCode: EPA Method 200.7: Total Metals				
Client ID:	FB091616			Batch ID:	27884		RunNo: 37699				
Prep Date:	10/4/2016		Analysis Date:		10/5/2016		SeqNo: 1174654		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	96.4	70	130	0.193	20		
Cadmium	0.50	0.0020	0.5000	0	99.4	70	130	1.11	20		
Chromium	0.48	0.0060	0.5000	0	96.7	70	130	0.983	20		
Copper	0.47	0.0060	0.5000	0	93.6	70	130	0.118	20		
Iron	0.47	0.020	0.5000	0	94.5	70	130	1.97	20		
Manganese	0.47	0.0020	0.5000	0	94.4	70	130	0.425	20		
Silver	0.10	0.0050	0.1000	0	99.6	70	130	0.473	20		
Zinc	0.49	0.010	0.5000	0	97.1	70	130	0.0988	20		

Sample ID	1609A26-001DMS			SampType:	MS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	OW-55			Batch ID:	27884		RunNo:	37749			
Prep Date:	10/4/2016			Analysis Date:	10/6/2016		SeqNo:	1176009		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Silver	0.036	0.0050	0.1000	0	36.1	70	130			S	

Sample ID	1609A26-001DMSD			SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	OW-55		Batch ID:		27884		RunNo:	37749			
Prep Date:	10/4/2016		Analysis Date:		10/6/2016		SeqNo:	1176013		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Silver	0.034	0.0050	0.1000	0	33.8	70	130	6.64	20	S	

Sample ID	1609A26-001DMS			SampType:	MS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	OW-55			Batch ID:	27884		RunNo:	37749			
Prep Date:	10/4/2016			Analysis Date:	10/6/2016		SeqNo:	1176016		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	1.7	0.010	0.5000	1.221	100	70	130				

Sample ID	1609A26-001DMSD			SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	OW-55		Batch ID:		27884		RunNo:	37749			
Prep Date:	10/4/2016		Analysis Date:		10/6/2016		SeqNo:	1176017		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	1.7	0.010	0.5000	1.221	95.9	70	130	1.19	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#: 1609A26

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID LCS	SampType: LCS				TestCode: EPA 200.8: Dissolved Metals					
Client ID: LCSW	Batch ID: C37623				RunNo: 37623					
Prep Date:	Analysis Date: 9/30/2016				SeqNo: 1171239		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	93.4	85	115			
Lead	0.012	0.00050	0.01250	0	94.9	85	115			
Selenium	0.024	0.0010	0.02500	0	94.0	85	115			
Uranium	0.012	0.00050	0.01250	0	93.6	85	115			

Sample ID LLCS	SampType: LCSLL				TestCode: EPA 200.8: Dissolved Metals					
Client ID: BatchQC	Batch ID: C37623				RunNo: 37623					
Prep Date:	Analysis Date: 9/30/2016				SeqNo: 1171246		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	100	50	150			
Lead	0.00050	0.00050	0.0005000	0	100	50	150			
Selenium	0.0011	0.0010	0.001000	0	107	50	150			
Uranium	0.00049	0.00050	0.0005000	0	97.0	50	150			J

Sample ID MB	SampType: MBLK				TestCode: EPA 200.8: Dissolved Metals					
Client ID: PBW	Batch ID: C37623				RunNo: 37623					
Prep Date:	Analysis Date: 9/30/2016				SeqNo: 1171252		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 LLCS	SampType: LCSLL				TestCode: EPA 200.8: Dissolved Metals					
Client ID: BatchQC	Batch ID: C37789				RunNo: 37789					
Prep Date:	Analysis Date: 10/7/2016				SeqNo: 1177742		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	110	50	150			
Selenium	0.0011	0.0010	0.001000	0	110	50	150			
Uranium	0.00051	0.00050	0.0005000	0	103	50	150			

Sample ID MB	SampType: MBLK				TestCode: EPA 200.8: Dissolved Metals					
Client ID: PBW	Batch ID: C37789				RunNo: 37789					
Prep Date:	Analysis Date: 10/7/2016				SeqNo: 1177744		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | 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#: 1609A26

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID:	PBW	Batch ID: C37789			RunNo: 37789						
Prep Date:		Analysis Date: 10/7/2016			SeqNo: 1177744		Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium		ND	0.0010								
Uranium		ND	0.00050								

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609A26

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	1609A26-003DMSLL				SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total		
Client ID:	OW-56				Batch ID:	27884		RunNo:	37763		
Prep Date:	10/4/2016				Analysis Date:	10/6/2016		SeqNo:	1176367	Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.015	0.00050	0.01250	0.001040	113	70	130				

Sample ID	MB-27884				SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total		
Client ID:	PBW				Batch ID:	27884		RunNo:	37763		
Prep Date:	10/4/2016				Analysis Date:	10/6/2016		SeqNo:	1176393	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-27884				SampType:	LCS		TestCode:	200.8 ICPMS Metals:Total		
Client ID:	LCSW				Batch ID:	27884		RunNo:	37763		
Prep Date:	10/4/2016				Analysis Date:	10/6/2016		SeqNo:	1176395	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	99.8	85	115				
Lead	0.013	0.00050	0.01250	0	104	85	115				
Selenium	0.024	0.0010	0.02500	0	97.4	85	115				
Uranium	0.013	0.00050	0.01250	0	102	85	115				

Sample ID	MSLLCS-27884				SampType:	LCSLL		TestCode:	200.8 ICPMS Metals:Total		
Client ID:	BatchQC				Batch ID:	27884		RunNo:	37763		
Prep Date:	10/4/2016				Analysis Date:	10/6/2016		SeqNo:	1176397	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	105	50	150				
Selenium	0.00089	0.0010	0.001000	0	89.5	50	150				J
Uranium	0.00049	0.00050	0.0005000	0	98.8	50	150				J

Sample ID	1609A26-003DMSLL				SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total		
Client ID:	OW-56				Batch ID:	27884		RunNo:	37781		
Prep Date:	10/4/2016				Analysis Date:	10/7/2016		SeqNo:	1176920	Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.038	0.0025	0.01250	0.02415	107	70	130				

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609A26

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	1609A26-004DMSDL	SampType:	MSDLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	OW-54	Batch ID:	27884	RunNo:	37781					
Prep Date:	10/4/2016	Analysis Date:	10/7/2016	SeqNo:	1176923	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.046	0.0025	0.01250	0.03164	115	70	130	1.71	20	
Uranium	0.081	0.0025	0.01250	0.06456	128	70	130	2.00	20	

Sample ID	1609A26-004DMSLL	SampType:	MSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	OW-54	Batch ID:	27884	RunNo:	37781					
Prep Date:	10/4/2016	Analysis Date:	10/7/2016	SeqNo:	1176924	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.047	0.0025	0.01250	0.03164	121	70	130			
Uranium	0.082	0.0025	0.01250	0.06456	141	70	130			S

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
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#: 1609A26

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	MB-27776		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 27776		RunNo: 37570					
Prep Date:	9/28/2016		Analysis Date: 9/29/2016		SeqNo: 1168946		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	0.00011	0.00020								J

Sample ID	LCS-27776			SampType:	LCS		TestCode:	EPA Method 245.1: Mercury			
Client ID:	LCSW			Batch ID:	27776		RunNo:	37570			
Prep Date:	9/28/2016			Analysis Date:	9/29/2016		SeqNo:	1168947		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0047	0.00020	0.005000	0	94.2	80	120				

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609A26

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	1609A26-001CMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	OW-55		Batch ID: 27591		RunNo: 37320					
Prep Date:	9/20/2016		Analysis Date: 9/20/2016		SeqNo: 1159804		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	9.9	1.0	5.000	5.350	91.4	79.6	148			
Surr: DNOP	0.58		0.5000		116	77.1	144			

Sample ID	1609A26-001CMSD		SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range				
Client ID:	OW-55		Batch ID:	27591		RunNo:	37320				
Prep Date:	9/20/2016		Analysis Date:	9/20/2016		SeqNo:	1159805		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	10	1.0	5.000	5.350	101	79.6	148	4.76	20		
Surr: DNOP	0.61		0.5000		122	77.1	144	0	0		

Sample ID	LCS-27591		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 27591		RunNo: 37320					
Prep Date:	9/20/2016		Analysis Date: 9/20/2016		SeqNo: 1159822		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	106	63.2	155			
Surr: DNOP	0.57		0.5000		114	77.1	144			

Sample ID	MB-27591		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 27591		RunNo: 37320					
Prep Date:	9/20/2016		Analysis Date: 9/20/2016		SeqNo: 1159826		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	1.2		1.000		116	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#: 1609A26

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R37365			RunNo: 37365					
Prep Date:		Analysis Date: 9/21/2016			SeqNo: 1160915		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	70	130			
Toluene	19	1.0	20.00	0	92.7	70	130			
Chlorobenzene	19	1.0	20.00	0	94.9	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	92.5	70	130			
Trichloroethene (TCE)	16	1.0	20.00	0	81.3	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.0	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.7	70	130			
Surr: Toluene-d8	9.8		10.00		98.0	70	130			

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R37365			RunNo: 37365					
Prep Date:		Analysis Date: 9/21/2016			SeqNo: 1160916		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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609A26

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R37365			RunNo: 37365					
Prep Date:		Analysis Date: 9/21/2016			SeqNo: 1160916	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.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609A26

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R37365			RunNo: 37365						
Prep Date:	Analysis Date: 9/21/2016			SeqNo: 1160916		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		100	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.1	70	130			
Surr: Dibromofluoromethane	10		10.00		99.6	70	130			
Surr: Toluene-d8	9.7		10.00		97.5	70	130			

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: W37409			RunNo: 37409						
Prep Date:	Analysis Date: 9/22/2016			SeqNo: 1162560		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	107	70	130			
Toluene	19	1.0	20.00	0	95.8	70	130			
Chlorobenzene	19	1.0	20.00	0	95.6	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	96.4	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	87.4	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.8		10.00		97.7	70	130			
Surr: Toluene-d8	9.7		10.00		97.5	70	130			

Sample ID rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: W37409			RunNo: 37409						
Prep Date:	Analysis Date: 9/22/2016			SeqNo: 1162561		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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

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WO#: 1609A26

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: W37409			RunNo: 37409					
Prep Date:		Analysis Date: 9/22/2016			SeqNo: 1162561	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609A26

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	rb	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID: W37409				RunNo: 37409				
Prep Date:		Analysis Date: 9/22/2016				SeqNo: 1162561	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.1	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.9	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.6	70	130			
Surr: Toluene-d8	9.5		10.00		95.2	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
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609A26

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	2.5ug gro lcs		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: W37365		RunNo: 37365					
Prep Date:			Analysis Date: 9/21/2016		SeqNo: 1161683		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	95.2	75.4	118			
Surr: BFB	10		10.00		100	70	130			

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID: W37365			RunNo: 37365					
Prep Date:		Analysis Date: 9/21/2016			SeqNo: 1161684		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.019	0.050								J
Surr: BFB	9.7		10.00		97.3	70	130			

Sample ID	1609A26-002BMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	FB091616		Batch ID: W37365		RunNo: 37365					
Prep Date:			Analysis Date: 9/21/2016		SeqNo: 1161687		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.45	0.050	0.5000	0.03720	82.6	53.8	128			
Surr: BFB	9.9		10.00		99.1	70	130			

Sample ID	1609A26-002BMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	FB091616		Batch ID: W37365		RunNo: 37365					
Prep Date:			Analysis Date: 9/21/2016		SeqNo: 1161688		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.44	0.050	0.5000	0.03720	79.7	53.8	128	3.34	20	
Surr: BFB	10		10.00		103	70	130	0	0	

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

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1609A26

RcptNo: 1

Received by/date: *AF 09/16/16*

Logged By: Anne Thorne 9/18/2016 2:00:00 PM

Anne Thorne

Completed By: Anne Thorne 9/19/2016

Anne Thorne

Reviewed By: *AS* 09/19/16

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 ☒ *je 09/19/16*
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: 10
(<2 or >12 unless noted)
Adjusted? yes
Checked by: *je*

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

For metals analysis: added IMC to -004D and -005D for acceptable pH 09/19/16

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

@ 1535

je

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.

Project Name: GALLUP REFINERY

Shipping Address: 92 GIANT CROSSING RD

GALLUP NM 87301

Phone #: 505-722-0231

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

VQC Package:

Standard ☒ Level 4 (Full Validation)

Creditation

NELAP ☐ Other ☐

EDD (Type)

Sample Temperature: 2.1

On Ice: ☒ Yes ☐ No

Sampler: TRACY PAYNE

Project Manager:

CHERYL JOHNSON

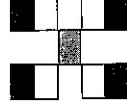
Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

2016 3RD QTR (OW)

Project #:



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	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)	WQC METALS	(TOTAL & DISSOLVED)	Air Bubbles (Y or N)
10/16		WATER	DUPOG	40ML VOA-6	HCL	11609A26			✓							✓				
				250ML AMBER	NEAT	705			✓									✓		
				500ML PLASTIC-1	HNO ₃	705												✓		
				125ML PLASTIC-1	HNO ₃	705												✓		
				500ML PLASTIC-1	NEAT	705														
10/16		WATER	TRIP BLANK	40ML VOA-3	HCL	706										✓				

Remarks:

Received by:

Date Time

9/16/16 1400

Received by:

Date Time



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

October 18, 2016

Cheryl Johnson

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

RE: 2016 Annual/Quarterly

OrderNo.: 1609076

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 9/1/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609076

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 8:42:00 AM

Lab ID: 1609076-001

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	4.1	0.69	1.0		mg/L	1	9/6/2016 1:20:59 PM	27339
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/6/2016 1:20:59 PM	27339
Surr: DNOP	134	0	77.1-144		%Rec	1	9/6/2016 1:20:59 PM	27339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA	
Gasoline Range Organics (GRO)	31	1.3	2.5		mg/L	50	9/6/2016 10:17:55 AM	R37021
Surr: BFB	83.5	0	66.4-120		%Rec	50	9/6/2016 10:17:55 AM	R37021
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	2.2	0.0066	0.010	*	mg/L	5	9/16/2016 11:10:25 AM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 11:08:43 AM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 11:08:43 AM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 11:08:43 AM	A37246
Iron	4.9	0.10	0.10	*	mg/L	5	9/16/2016 11:10:25 AM	A37246
Manganese	2.2	0.0016	0.010	*	mg/L	5	9/16/2016 11:10:25 AM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 11:08:43 AM	A37246
Zinc	0.028	0.0028	0.010		mg/L	1	9/16/2016 11:08:43 AM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	2.1	0.0040	0.010	*	mg/L	5	9/29/2016 1:41:43 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 3:50:00 PM	27573
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 3:50:00 PM	27573
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 3:50:00 PM	27573
Iron	4.9	0.10	0.10	*	mg/L	5	9/29/2016 1:41:43 PM	27573
Manganese	2.2	0.0014	0.010	*	mg/L	5	9/29/2016 1:41:43 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 3:50:00 PM	27573
Zinc	0.015	0.0027	0.010		mg/L	1	9/21/2016 3:50:00 PM	27573
EPA 200.8: DISSOLVED METALS							Analyst: DBD	
Arsenic	0.0086	0.00014	0.0010		mg/L	1	9/13/2016 10:32:10 PM	C37166
Lead	ND	0.00017	0.00050		mg/L	1	9/13/2016 10:32:10 PM	C37166
Selenium	0.012	0.0042	0.020	J	mg/L	20	9/16/2016 3:34:11 PM	B37281
Uranium	0.0054	0.00026	0.0025		mg/L	5	9/15/2016 5:08:47 PM	C37239
200.8 ICPMS METALS:TOTAL							Analyst: DBD	
Arsenic	0.0076	0.0021	0.010	J	mg/L	10	9/16/2016 6:34:34 PM	27450
Lead	0.00014	0.000081	0.00050	J	mg/L	1	9/14/2016 5:12:50 PM	27450
Selenium	0.014	0.0019	0.010		mg/L	10	9/19/2016 3:25:54 PM	27450
Uranium	0.0059	0.00017	0.00050		mg/L	1	9/14/2016 5:12:50 PM	27450
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	8100	48	500		µg/L	500	9/6/2016 8:07:00 PM	R37011

Refer to the QC Summary report and 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
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	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: OW-14

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 8:42:00 AM

Lab ID: 1609076-001

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Toluene	2.9	0.59	5.0	J	µg/L	5	9/2/2016 4:06:00 PM	R36950
Ethylbenzene	250	0.56	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Methyl tert-butyl ether (MTBE)	580	1.1	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,2,4-Trimethylbenzene	7.1	0.55	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,3,5-Trimethylbenzene	0.82	0.58	5.0	J	µg/L	5	9/2/2016 4:06:00 PM	R36950
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Naphthalene	18	0.46	10		µg/L	5	9/2/2016 4:06:00 PM	R36950
1-Methylnaphthalene	34	1.0	20		µg/L	5	9/2/2016 4:06:00 PM	R36950
2-Methylnaphthalene	ND	0.79	20		µg/L	5	9/2/2016 4:06:00 PM	R36950
Acetone	ND	25	50		µg/L	5	9/2/2016 4:06:00 PM	R36950
Bromobenzene	ND	0.49	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Bromodichloromethane	ND	0.70	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Bromoform	ND	0.51	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Bromomethane	ND	3.9	15		µg/L	5	9/2/2016 4:06:00 PM	R36950
2-Butanone	ND	3.7	50		µg/L	5	9/2/2016 4:06:00 PM	R36950
Carbon disulfide	ND	3.0	50		µg/L	5	9/2/2016 4:06:00 PM	R36950
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Chlorobenzene	ND	0.57	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Chloroethane	ND	0.96	10		µg/L	5	9/2/2016 4:06:00 PM	R36950
Chloroform	ND	0.44	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Chloromethane	ND	1.1	15		µg/L	5	9/2/2016 4:06:00 PM	R36950
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	9/2/2016 4:06:00 PM	R36950
Dibromochloromethane	ND	0.43	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Dibromomethane	ND	0.60	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
2,2-Dichloropropane	ND	0.83	10		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-14

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 8:42:00 AM

Lab ID: 1609076-001

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
2-Hexanone	ND	4.2	50		µg/L	5	9/2/2016 4:06:00 PM	R36950
Isopropylbenzene	8.5	0.52	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	9/2/2016 4:06:00 PM	R36950
Methylene Chloride	ND	0.94	15		µg/L	5	9/2/2016 4:06:00 PM	R36950
n-Butylbenzene	1.3	0.80	15	J	µg/L	5	9/2/2016 4:06:00 PM	R36950
n-Propylbenzene	11	0.66	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
sec-Butylbenzene	2.2	0.62	5.0	J	µg/L	5	9/2/2016 4:06:00 PM	R36950
Styrene	ND	0.55	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	9/2/2016 4:06:00 PM	R36950
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	9/2/2016 4:06:00 PM	R36950
Vinyl chloride	ND	0.98	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Xylenes, Total	8.0	1.8	7.5		µg/L	5	9/2/2016 4:06:00 PM	R36950
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	5	9/2/2016 4:06:00 PM	R36950
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	5	9/2/2016 4:06:00 PM	R36950
Surr: Dibromofluoromethane	96.2	0	70-130		%Rec	5	9/2/2016 4:06:00 PM	R36950
Surr: Toluene-d8	101	0	70-130		%Rec	5	9/2/2016 4:06:00 PM	R36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609076

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 9:40:00 AM

Lab ID: 1609076-002

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/6/2016 2:26:49 PM	27339
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/6/2016 2:26:49 PM	27339
Surr: DNOP	133	0	77.1-144		%Rec	1	9/6/2016 2:26:49 PM	27339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA	
Gasoline Range Organics (GRO)	6.7	0.25	0.50		mg/L	10	9/6/2016 11:30:37 AM	R37021
Surr: BFB	82.0	0	66.4-120		%Rec	10	9/6/2016 11:30:37 AM	R37021
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.068	0.0013	0.0020		mg/L	1	9/16/2016 11:12:14 AM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 11:12:14 AM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 11:12:14 AM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 11:12:14 AM	A37246
Iron	0.27	0.020	0.020		mg/L	1	9/16/2016 11:12:14 AM	A37246
Manganese	0.30	0.00032	0.0020	*	mg/L	1	9/16/2016 11:12:14 AM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 11:12:14 AM	A37246
Zinc	0.028	0.0028	0.010		mg/L	1	9/16/2016 11:12:14 AM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: MED	
Barium	0.065	0.00079	0.0020		mg/L	1	9/21/2016 3:51:43 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 3:51:43 PM	27573
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 3:51:43 PM	27573
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 3:51:43 PM	27573
Iron	0.33	0.020	0.020	*	mg/L	1	9/21/2016 3:51:43 PM	27573
Manganese	0.28	0.00027	0.0020	*	mg/L	1	9/21/2016 3:51:43 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 3:51:43 PM	27573
Zinc	ND	0.0027	0.010		mg/L	1	9/21/2016 3:51:43 PM	27573
EPA 200.8: DISSOLVED METALS							Analyst: DBD	
Arsenic	0.0026	0.00069	0.0050	J	mg/L	5	9/15/2016 5:11:50 PM	C37239
Lead	ND	0.00084	0.0025		mg/L	5	9/15/2016 5:11:50 PM	C37239
Selenium	0.0065	0.0021	0.010	J	mg/L	10	9/20/2016 1:25:58 PM	B37327
Uranium	0.054	0.00026	0.0025	*	mg/L	5	9/15/2016 5:11:50 PM	C37239
200.8 ICPMS METALS:TOTAL							Analyst: DBD	
Arsenic	ND	0.0021	0.010		mg/L	10	9/16/2016 6:37:35 PM	27450
Lead	ND	0.000081	0.00050		mg/L	1	9/14/2016 5:21:55 PM	27450
Selenium	0.0062	0.0019	0.010	J	mg/L	10	9/16/2016 6:37:35 PM	27450
Uranium	0.053	0.00087	0.0025	*	mg/L	5	9/19/2016 3:28:55 PM	27450
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	0.54	0.096	1.0	J	µg/L	1	9/2/2016 4:30:00 PM	R36950

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 9:40:00 AM

Lab ID: 1609076-002

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Methyl tert-butyl ether (MTBE)	3000	11	50		µg/L	50	9/6/2016 10:43:00 AM	R37011
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,2-Dichloroethane (EDC)	0.65	0.12	1.0	J	µg/L	1	9/2/2016 4:30:00 PM	R36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1-Methylnaphthalene	0.26	0.20	4.0	J	µg/L	1	9/2/2016 4:30:00 PM	R36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Acetone	ND	4.9	10		µg/L	1	9/2/2016 4:30:00 PM	R36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 4:30:00 PM	R36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 4:30:00 PM	R36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609076

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-29

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 9:40:00 AM

Lab ID: 1609076-002

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 4:30:00 PM	R36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 4:30:00 PM	R36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 4:30:00 PM	R36950
Surr: 1,2-Dichloroethane-d4	100	0	70-130		%Rec	1	9/2/2016 4:30:00 PM	R36950
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	9/2/2016 4:30:00 PM	R36950
Surr: Dibromofluoromethane	97.2	0	70-130		%Rec	1	9/2/2016 4:30:00 PM	R36950
Surr: Toluene-d8	102	0	70-130		%Rec	1	9/2/2016 4:30:00 PM	R36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609076

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 10:45:00 AM

Lab ID: 1609076-003

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/6/2016 2:48:38 PM	27339
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/6/2016 2:48:38 PM	27339
Surr: DNOP	132	0	77.1-144		%Rec	1	9/6/2016 2:48:38 PM	27339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA	
Gasoline Range Organics (GRO)	0.068	0.025	0.050		mg/L	1	9/6/2016 11:55:03 AM	R37021
Surr: BFB	79.9	0	66.4-120		%Rec	1	9/6/2016 11:55:03 AM	R37021
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.020	0.0013	0.0020		mg/L	1	9/16/2016 11:22:07 AM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 11:22:07 AM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 11:22:07 AM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 11:22:07 AM	A37246
Iron	ND	0.020	0.020		mg/L	1	9/16/2016 11:22:07 AM	A37246
Manganese	0.021	0.00032	0.0020		mg/L	1	9/16/2016 11:22:07 AM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 11:22:07 AM	A37246
Zinc	0.042	0.0028	0.010		mg/L	1	9/16/2016 11:22:07 AM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: MED	
Barium	0.019	0.00079	0.0020		mg/L	1	9/21/2016 4:38:08 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 4:38:08 PM	27573
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 4:38:08 PM	27573
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 4:38:08 PM	27573
Iron	ND	0.020	0.020		mg/L	1	9/21/2016 4:38:08 PM	27573
Manganese	0.020	0.00027	0.0020		mg/L	1	9/21/2016 4:38:08 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 4:38:08 PM	27573
Zinc	ND	0.0027	0.010		mg/L	1	9/21/2016 4:38:08 PM	27573
EPA 200.8: DISSOLVED METALS							Analyst: DBD	
Arsenic	0.0015	0.00069	0.0050	J	mg/L	5	9/15/2016 5:14:54 PM	C37239
Lead	ND	0.00084	0.0025		mg/L	5	9/15/2016 5:14:54 PM	C37239
Selenium	0.0020	0.0011	0.0050	J	mg/L	5	9/15/2016 5:14:54 PM	C37239
Uranium	0.017	0.00026	0.0025		mg/L	5	9/15/2016 5:14:54 PM	C37239
200.8 ICPMS METALS:TOTAL							Analyst: DBD	
Arsenic	0.0015	0.00021	0.0010		mg/L	1	9/14/2016 5:24:55 PM	27450
Lead	ND	0.000081	0.00050		mg/L	1	9/14/2016 5:24:55 PM	27450
Selenium	0.0021	0.00019	0.0010		mg/L	1	9/14/2016 5:24:55 PM	27450
Uranium	0.018	0.00087	0.0025		mg/L	5	9/19/2016 3:31:55 PM	27450
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	0.13	0.096	1.0	J	µg/L	1	9/2/2016 4:54:00 PM	R36950

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 10:45:00 AM

Lab ID: 1609076-003

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Methyl tert-butyl ether (MTBE)	38	0.21	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,2-Dichloroethane (EDC)	0.79	0.12	1.0	J	µg/L	1	9/2/2016 4:54:00 PM	R36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Acetone	ND	4.9	10		µg/L	1	9/2/2016 4:54:00 PM	R36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 4:54:00 PM	R36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 4:54:00 PM	R36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609076

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-13

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 10:45:00 AM

Lab ID: 1609076-003

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 4:54:00 PM	R36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 4:54:00 PM	R36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 4:54:00 PM	R36950
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	1	9/2/2016 4:54:00 PM	R36950
Surr: 4-Bromofluorobenzene	100	0	70-130		%Rec	1	9/2/2016 4:54:00 PM	R36950
Surr: Dibromofluoromethane	101	0	70-130		%Rec	1	9/2/2016 4:54:00 PM	R36950
Surr: Toluene-d8	100	0	70-130		%Rec	1	9/2/2016 4:54:00 PM	R36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609076

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 11:50:00 AM

Lab ID: 1609076-004

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/6/2016 3:10:28 PM	27339
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/6/2016 3:10:28 PM	27339
Surr: DNOP	133	0	77.1-144		%Rec	1	9/6/2016 3:10:28 PM	27339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA	
Gasoline Range Organics (GRO)	6.9	0.25	0.50		mg/L	10	9/6/2016 12:19:22 PM	R37021
Surr: BFB	85.3	0	66.4-120		%Rec	10	9/6/2016 12:19:22 PM	R37021
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.10	0.0013	0.0020		mg/L	1	9/16/2016 11:26:13 AM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 11:26:13 AM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 11:26:13 AM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 11:26:13 AM	A37246
Iron	0.071	0.020	0.020		mg/L	1	9/16/2016 11:26:13 AM	A37246
Manganese	0.038	0.00032	0.0020		mg/L	1	9/16/2016 11:26:13 AM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 11:26:13 AM	A37246
Zinc	0.044	0.0028	0.010		mg/L	1	9/16/2016 11:26:13 AM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: MED	
Barium	0.096	0.00079	0.0020		mg/L	1	9/21/2016 4:40:18 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 4:40:18 PM	27573
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 4:40:18 PM	27573
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 4:40:18 PM	27573
Iron	0.071	0.020	0.020		mg/L	1	9/21/2016 4:40:18 PM	27573
Manganese	0.035	0.00027	0.0020		mg/L	1	9/21/2016 4:40:18 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 4:40:18 PM	27573
Zinc	ND	0.0027	0.010		mg/L	1	9/21/2016 4:40:18 PM	27573
EPA 200.8: DISSOLVED METALS							Analyst: DBD	
Arsenic	0.0031	0.00069	0.0050	J	mg/L	5	9/15/2016 5:17:57 PM	C37239
Lead	0.00019	0.00017	0.00050	J	mg/L	1	9/13/2016 11:02:48 PM	D37166
Selenium	0.0075	0.0042	0.020	J	mg/L	20	9/16/2016 3:37:15 PM	B37281
Uranium	0.046	0.00026	0.0025	*	mg/L	5	9/15/2016 5:17:57 PM	C37239
200.8 ICPMS METALS:TOTAL							Analyst: DBD	
Arsenic	ND	0.0021	0.010		mg/L	10	9/16/2016 6:43:36 PM	27450
Lead	0.00025	0.000081	0.00050	J	mg/L	1	9/14/2016 5:30:56 PM	27450
Selenium	0.0067	0.0019	0.010	J	mg/L	10	9/16/2016 6:43:36 PM	27450
Uranium	0.048	0.00087	0.0025	*	mg/L	5	9/19/2016 3:44:00 PM	27450
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609076

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 11:50:00 AM

Lab ID: 1609076-004

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Methyl tert-butyl ether (MTBE)	3000	11	50		µg/L	50	9/6/2016 11:07:00 AM	R37011
1,2,4-Trimethylbenzene	0.18	0.11	1.0	J	µg/L	1	9/2/2016 5:17:00 PM	R36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,2-Dichloroethane (EDC)	0.32	0.12	1.0	J	µg/L	1	9/2/2016 5:17:00 PM	R36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Acetone	ND	4.9	10		µg/L	1	9/2/2016 5:17:00 PM	R36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 5:17:00 PM	R36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 5:17:00 PM	R36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609076

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-30

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 11:50:00 AM

Lab ID: 1609076-004

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 5:17:00 PM	R36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 5:17:00 PM	R36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
sec-Butylbenzene	0.37	0.12	1.0	J	µg/L	1	9/2/2016 5:17:00 PM	R36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 5:17:00 PM	R36950
Surr: 1,2-Dichloroethane-d4	100	0	70-130		%Rec	1	9/2/2016 5:17:00 PM	R36950
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	9/2/2016 5:17:00 PM	R36950
Surr: Dibromofluoromethane	94.9	0	70-130		%Rec	1	9/2/2016 5:17:00 PM	R36950
Surr: Toluene-d8	99.8	0	70-130		%Rec	1	9/2/2016 5:17:00 PM	R36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609076

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: PW-3

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 2:40:00 PM

Lab ID: 1609076-005

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS								
							Analyst: MRA	
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/2/2016 10:06:23 PM	R36995
EPA METHOD 200.7: DISSOLVED METALS								
							Analyst: ELS	
Barium	0.011	0.0013	0.0020		mg/L	1	9/16/2016 11:31:17 AM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 11:31:17 AM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 11:31:17 AM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 11:31:17 AM	A37246
Iron	0.092	0.020	0.020		mg/L	1	9/16/2016 11:31:17 AM	A37246
Manganese	0.0014	0.00032	0.0020	J	mg/L	1	9/16/2016 11:31:17 AM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 11:31:17 AM	A37246
Zinc	0.011	0.0028	0.010		mg/L	1	9/16/2016 11:31:17 AM	A37246
EPA METHOD 200.7: TOTAL METALS								
							Analyst: MED	
Barium	0.011	0.00079	0.0020		mg/L	1	9/21/2016 4:42:16 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 4:42:16 PM	27573
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 4:42:16 PM	27573
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 4:42:16 PM	27573
Iron	0.24	0.020	0.020		mg/L	1	9/21/2016 4:42:16 PM	27573
Manganese	0.0016	0.00027	0.0020	J	mg/L	1	9/21/2016 4:42:16 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 4:42:16 PM	27573
Zinc	0.0072	0.0027	0.010	J	mg/L	1	9/21/2016 4:42:16 PM	27573
EPA 200.8: DISSOLVED METALS								
							Analyst: DBD	
Arsenic	0.0035	0.00014	0.0010		mg/L	1	9/13/2016 11:05:52 PM	D37166
Lead	ND	0.00017	0.00050		mg/L	1	9/13/2016 11:05:52 PM	D37166
Selenium	0.0018	0.0011	0.0050	J	mg/L	5	9/15/2016 5:21:01 PM	C37239
Uranium	0.0015	0.00026	0.0025	J	mg/L	5	9/15/2016 5:21:01 PM	C37239
200.8 ICPMS METALS:TOTAL								
							Analyst: DBD	
Arsenic	0.0041	0.00021	0.0010		mg/L	1	9/14/2016 5:39:58 PM	27450
Lead	0.00025	0.000081	0.00050	J	mg/L	1	9/14/2016 5:39:58 PM	27450
Selenium	0.0017	0.00019	0.0010		mg/L	1	9/14/2016 5:39:58 PM	27450
Uranium	0.0017	0.00017	0.00050		mg/L	1	9/14/2016 5:39:58 PM	27450
EPA METHOD 8270C: SEMIVOLATILES								
							Analyst: JDC	
Acenaphthene	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Acenaphthylene	ND	2.4	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Aniline	ND	2.4	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Anthracene	ND	2.5	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Azobenzene	ND	2.7	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/10/2016 11:58:13 PM	27341

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609076

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: PW-3

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 2:40:00 PM

Lab ID: 1609076-005

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC	
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Benzoic acid	8.5	2.6	20	J	µg/L	1	9/10/2016 11:58:13 PM	27341
Benzyl alcohol	ND	3.0	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Bis(2-ethylhexyl)phthalate	4.1	2.6	10	J	µg/L	1	9/10/2016 11:58:13 PM	27341
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Carbazole	ND	2.3	10		µg/L	1	9/10/2016 11:58:13 PM	27341
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
4-Chloroaniline	ND	2.7	10		µg/L	1	9/10/2016 11:58:13 PM	27341
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/10/2016 11:58:13 PM	27341
2-Chlorophenol	ND	2.2	10		µg/L	1	9/10/2016 11:58:13 PM	27341
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Chrysene	ND	2.8	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Di-n-octyl phthalate	4.3	2.0	10	J	µg/L	1	9/10/2016 11:58:13 PM	27341
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Dibenzofuran	ND	2.5	10		µg/L	1	9/10/2016 11:58:13 PM	27341
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/10/2016 11:58:13 PM	27341
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/10/2016 11:58:13 PM	27341
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/10/2016 11:58:13 PM	27341
3,3'-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Diethyl phthalate	3.7	2.7	10	J	µg/L	1	9/10/2016 11:58:13 PM	27341
Dimethyl phthalate	7.9	2.4	10	J	µg/L	1	9/10/2016 11:58:13 PM	27341
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/10/2016 11:58:13 PM	27341
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/10/2016 11:58:13 PM	27341
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/10/2016 11:58:13 PM	27341
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/10/2016 11:58:13 PM	27341
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/10/2016 11:58:13 PM	27341
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Fluoranthene	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Fluorene	ND	2.7	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/10/2016 11:58:13 PM	27341

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609076

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: PW-3

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 2:40:00 PM

Lab ID: 1609076-005

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC	
Hexachloroethane	ND	2.4	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Isophorone	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/10/2016 11:58:13 PM	27341
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/10/2016 11:58:13 PM	27341
2-Methylphenol	ND	2.5	10		µg/L	1	9/10/2016 11:58:13 PM	27341
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/10/2016 11:58:13 PM	27341
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/10/2016 11:58:13 PM	27341
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/10/2016 11:58:13 PM	27341
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Naphthalene	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
2-Nitroaniline	ND	2.8	10		µg/L	1	9/10/2016 11:58:13 PM	27341
3-Nitroaniline	ND	2.9	10		µg/L	1	9/10/2016 11:58:13 PM	27341
4-Nitroaniline	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Nitrobenzene	ND	2.8	10		µg/L	1	9/10/2016 11:58:13 PM	27341
2-Nitrophenol	ND	2.4	10		µg/L	1	9/10/2016 11:58:13 PM	27341
4-Nitrophenol	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Pentachlorophenol	ND	2.3	20		µg/L	1	9/10/2016 11:58:13 PM	27341
Phenanthrene	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Phenol	ND	2.0	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Pyrene	ND	3.1	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Pyridine	ND	2.2	10		µg/L	1	9/10/2016 11:58:13 PM	27341
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/10/2016 11:58:13 PM	27341
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Surr: 2-Fluorophenol	45.9	0	15-123		%Rec	1	9/10/2016 11:58:13 PM	27341
Surr: Phenol-d5	46.0	0	15-124		%Rec	1	9/10/2016 11:58:13 PM	27341
Surr: 2,4,6-Tribromophenol	58.3	0	18.4-134		%Rec	1	9/10/2016 11:58:13 PM	27341
Surr: Nitrobenzene-d5	88.5	0	28.8-134		%Rec	1	9/10/2016 11:58:13 PM	27341
Surr: 2-Fluorobiphenyl	79.1	0	35.9-125		%Rec	1	9/10/2016 11:58:13 PM	27341
Surr: 4-Terphenyl-d14	42.2	0	15-146		%Rec	1	9/10/2016 11:58:13 PM	27341
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Methyl tert-butyl ether (MTBE)	0.84	0.21	1.0	J	µg/L	1	9/2/2016 5:41:00 PM	R36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950

Refer to the QC Summary report and 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: PW-3

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 2:40:00 PM

Lab ID: 1609076-005

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Acetone	ND	4.9	10		µg/L	1	9/2/2016 5:41:00 PM	R36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 5:41:00 PM	R36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 5:41:00 PM	R36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 5:41:00 PM	R36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 5:41:00 PM	R36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 5:41:00 PM	R36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609076

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: PW-3

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 2:40:00 PM

Lab ID: 1609076-005

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 5:41:00 PM	R36950
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	1	9/2/2016 5:41:00 PM	R36950
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	9/2/2016 5:41:00 PM	R36950
Surr: Dibromofluoromethane	101	0	70-130		%Rec	1	9/2/2016 5:41:00 PM	R36950
Surr: Toluene-d8	101	0	70-130		%Rec	1	9/2/2016 5:41:00 PM	R36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609076

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: PW-4

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 3:10:00 PM

Lab ID: 1609076-006

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS								
							Analyst: MRA	
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/2/2016 10:18:47 PM	R36995
EPA METHOD 200.7: DISSOLVED METALS								
							Analyst: ELS	
Barium	0.014	0.0013	0.0020		mg/L	1	9/16/2016 11:35:12 AM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 11:35:12 AM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 11:35:12 AM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 11:35:12 AM	A37246
Iron	0.061	0.020	0.020		mg/L	1	9/16/2016 11:35:12 AM	A37246
Manganese	0.00098	0.00032	0.0020	J	mg/L	1	9/16/2016 11:35:12 AM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 11:35:12 AM	A37246
Zinc	ND	0.0028	0.010		mg/L	1	9/16/2016 11:35:12 AM	A37246
EPA METHOD 200.7: TOTAL METALS								
							Analyst: MED	
Barium	0.014	0.00079	0.0020		mg/L	1	9/21/2016 4:44:10 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 4:44:10 PM	27573
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 4:44:10 PM	27573
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 4:44:10 PM	27573
Iron	0.14	0.020	0.020		mg/L	1	9/21/2016 4:44:10 PM	27573
Manganese	0.0012	0.00027	0.0020	J	mg/L	1	9/21/2016 4:44:10 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 4:44:10 PM	27573
Zinc	0.0036	0.0027	0.010	J	mg/L	1	9/21/2016 4:44:10 PM	27573
EPA 200.8: DISSOLVED METALS								
							Analyst: DBD	
Arsenic	0.0029	0.00014	0.0010		mg/L	1	9/13/2016 11:08:55 PM	D37166
Lead	ND	0.00017	0.00050		mg/L	1	9/13/2016 11:08:55 PM	D37166
Selenium	0.0018	0.0011	0.0050	J	mg/L	5	9/15/2016 5:24:04 PM	C37239
Uranium	0.0015	0.00026	0.0025	J	mg/L	5	9/15/2016 5:24:04 PM	C37239
200.8 ICPMS METALS:TOTAL								
							Analyst: DBD	
Arsenic	0.0037	0.00021	0.0010		mg/L	1	9/14/2016 5:42:59 PM	27450
Lead	ND	0.000081	0.00050		mg/L	1	9/14/2016 5:42:59 PM	27450
Selenium	0.0016	0.00019	0.0010		mg/L	1	9/14/2016 5:42:59 PM	27450
Uranium	0.0018	0.00017	0.00050		mg/L	1	9/14/2016 5:42:59 PM	27450
EPA METHOD 8270C: SEMIVOLATILES								
							Analyst: JDC	
Acenaphthene	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Acenaphthylene	ND	2.4	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Aniline	ND	2.4	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Anthracene	ND	2.5	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Azobenzene	ND	2.7	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/11/2016 12:26:04 AM	27341

Refer to the QC Summary report and 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: PW-4

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 3:10:00 PM

Lab ID: 1609076-006

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC	
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Benzoic acid	8.7	2.6	20	J	µg/L	1	9/11/2016 12:26:04 AM	27341
Benzyl alcohol	ND	3.0	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Bis(2-ethylhexyl)phthalate	3.1	2.6	10	J	µg/L	1	9/11/2016 12:26:04 AM	27341
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Carbazole	ND	2.3	10		µg/L	1	9/11/2016 12:26:04 AM	27341
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
4-Chloroaniline	ND	2.7	10		µg/L	1	9/11/2016 12:26:04 AM	27341
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/11/2016 12:26:04 AM	27341
2-Chlorophenol	ND	2.2	10		µg/L	1	9/11/2016 12:26:04 AM	27341
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Chrysene	ND	2.8	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Di-n-octyl phthalate	3.8	2.0	10	J	µg/L	1	9/11/2016 12:26:04 AM	27341
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Dibenzofuran	ND	2.5	10		µg/L	1	9/11/2016 12:26:04 AM	27341
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/11/2016 12:26:04 AM	27341
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/11/2016 12:26:04 AM	27341
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/11/2016 12:26:04 AM	27341
3,3'-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Diethyl phthalate	2.9	2.7	10	J	µg/L	1	9/11/2016 12:26:04 AM	27341
Dimethyl phthalate	6.4	2.4	10	J	µg/L	1	9/11/2016 12:26:04 AM	27341
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/11/2016 12:26:04 AM	27341
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/11/2016 12:26:04 AM	27341
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/11/2016 12:26:04 AM	27341
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/11/2016 12:26:04 AM	27341
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/11/2016 12:26:04 AM	27341
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Fluoranthene	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Fluorene	ND	2.7	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/11/2016 12:26:04 AM	27341

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609076

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: PW-4

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 3:10:00 PM

Lab ID: 1609076-006

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC	
Hexachloroethane	ND	2.4	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Isophorone	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/11/2016 12:26:04 AM	27341
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/11/2016 12:26:04 AM	27341
2-Methylphenol	ND	2.5	10		µg/L	1	9/11/2016 12:26:04 AM	27341
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/11/2016 12:26:04 AM	27341
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/11/2016 12:26:04 AM	27341
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/11/2016 12:26:04 AM	27341
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Naphthalene	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
2-Nitroaniline	ND	2.8	10		µg/L	1	9/11/2016 12:26:04 AM	27341
3-Nitroaniline	ND	2.9	10		µg/L	1	9/11/2016 12:26:04 AM	27341
4-Nitroaniline	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Nitrobenzene	ND	2.8	10		µg/L	1	9/11/2016 12:26:04 AM	27341
2-Nitrophenol	ND	2.4	10		µg/L	1	9/11/2016 12:26:04 AM	27341
4-Nitrophenol	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Pentachlorophenol	ND	2.3	20		µg/L	1	9/11/2016 12:26:04 AM	27341
Phenanthrene	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Phenol	ND	2.0	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Pyrene	ND	3.1	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Pyridine	ND	2.2	10		µg/L	1	9/11/2016 12:26:04 AM	27341
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/11/2016 12:26:04 AM	27341
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Surr: 2-Fluorophenol	32.8	0	15-123		%Rec	1	9/11/2016 12:26:04 AM	27341
Surr: Phenol-d5	33.8	0	15-124		%Rec	1	9/11/2016 12:26:04 AM	27341
Surr: 2,4,6-Tribromophenol	46.2	0	18.4-134		%Rec	1	9/11/2016 12:26:04 AM	27341
Surr: Nitrobenzene-d5	56.1	0	28.8-134		%Rec	1	9/11/2016 12:26:04 AM	27341
Surr: 2-Fluorobiphenyl	52.8	0	35.9-125		%Rec	1	9/11/2016 12:26:04 AM	27341
Surr: 4-Terphenyl-d14	34.8	0	15-146		%Rec	1	9/11/2016 12:26:04 AM	27341
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950

Refer to the QC Summary report and 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: PW-4

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 3:10:00 PM

Lab ID: 1609076-006

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Acetone	ND	4.9	10		µg/L	1	9/2/2016 6:04:00 PM	R36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 6:04:00 PM	R36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 6:04:00 PM	R36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 6:04:00 PM	R36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 6:04:00 PM	R36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 6:04:00 PM	R36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609076

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: PW-4

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 3:10:00 PM

Lab ID: 1609076-006

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 6:04:00 PM	R36950
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	1	9/2/2016 6:04:00 PM	R36950
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	9/2/2016 6:04:00 PM	R36950
Surr: Dibromofluoromethane	99.8	0	70-130		%Rec	1	9/2/2016 6:04:00 PM	R36950
Surr: Toluene-d8	99.7	0	70-130		%Rec	1	9/2/2016 6:04:00 PM	R36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609076

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2016 Annual/Quarterly

Collection Date:

Lab ID: 1609076-007

Matrix: TRIP BLANK

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	9/6/2016 12:43:47 PM	R37021
Surr: BFB	85.6	0	66.4-120		%Rec	1	9/6/2016 12:43:47 PM	R37021
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Acetone	ND	4.9	10		µg/L	1	9/2/2016 6:28:00 PM	R36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 6:28:00 PM	R36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 6:28:00 PM	R36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609076

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2016 Annual/Quarterly

Collection Date:

Lab ID: 1609076-007

Matrix: TRIP BLANK

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 6:28:00 PM	R36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 6:28:00 PM	R36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 6:28:00 PM	R36950
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	9/2/2016 6:28:00 PM	R36950
Surr: 4-Bromofluorobenzene	100	0	70-130		%Rec	1	9/2/2016 6:28:00 PM	R36950
Surr: Dibromofluoromethane	100	0	70-130		%Rec	1	9/2/2016 6:28:00 PM	R36950
Surr: Toluene-d8	101	0	70-130		%Rec	1	9/2/2016 6:28:00 PM	R36950

Refer to the QC Summary report and 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: Field Blank

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 7:00:00 AM

Lab ID: 1609076-008

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Acetone	ND	4.9	10		µg/L	1	9/2/2016 6:51:00 PM	R36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 6:51:00 PM	R36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 6:51:00 PM	R36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 6:51:00 PM	R36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609076

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2016 Annual/Quarterly

Collection Date: 8/31/2016 7:00:00 AM

Lab ID: 1609076-008

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 6:51:00 PM	R36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 6:51:00 PM	R36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 6:51:00 PM	R36950
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	1	9/2/2016 6:51:00 PM	R36950
Surr: 4-Bromofluorobenzene	105	0	70-130		%Rec	1	9/2/2016 6:51:00 PM	R36950
Surr: Dibromofluoromethane	102	0	70-130		%Rec	1	9/2/2016 6:51:00 PM	R36950
Surr: Toluene-d8	100	0	70-130		%Rec	1	9/2/2016 6:51:00 PM	R36950

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

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

Anatek Labs, Inc.

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

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

Batch #: 160908029
Project Name: 1609076

Analytical Results Report

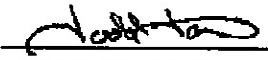
Sample Number	160908029-001	Sampling Date	8/31/2016	Date/Time Received	9/8/2016	12:30 PM
Client Sample ID	1609076-005F / PW-3	Sampling Time	2:40 PM			
Matrix	Water					
Comments						

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	9/14/2016	MER	EPA 335.4	

Sample Number	160908029-002	Sampling Date	8/31/2016	Date/Time Received	9/8/2016	12:30 PM
Client Sample ID	1609076-006F / PW-4	Sampling Time	3:10 PM			
Matrix	Water					
Comments						

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	9/14/2016	MER	EPA 335.4	

Authorized Signature



Todd Taruscio, Lab Manager

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

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

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP):E87893; ID:ID00013; MT:CE00028; NM: ID00013; NV:ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:CE00095; FL(NELAP): E871099

Anatek Labs, Inc.

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

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

Batch #: 160908029
Project Name: 1609076

Analytical Results Report Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.513	mg/L	0.5	102.6	90-110	9/14/2016	9/14/2016

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
160908027-002	Cyanide	ND	0.509	mg/L	0.5	101.8	90-110	9/14/2016	9/14/2016

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	0.494	mg/L	0.5	98.8	3.0	0-20	9/14/2016	9/14/2016

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/L	0.01	9/14/2016	9/14/2016

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

Comments:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609076

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	MB-A		SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	PBW		Batch ID:	A37246		RunNo:	37246			
Prep Date:			Analysis Date:	9/16/2016		SeqNo:	1155988	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-A		SampType:	LCS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	LCSW		Batch ID:	A37246		RunNo:	37246			
Prep Date:			Analysis Date:	9/16/2016		SeqNo:	1155989	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.7	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	98.5	85	115			
Copper	0.49	0.0060	0.5000	0	97.6	85	115			
Iron	0.49	0.020	0.5000	0	97.3	85	115			
Manganese	0.48	0.0020	0.5000	0	96.9	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			
Zinc	0.50	0.010	0.5000	0	99.2	85	115			

Sample ID	LLCS-A		SampType:	LCSLL		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	A37246		RunNo:	37246			
Prep Date:			Analysis Date:	9/16/2016		SeqNo:	1155990	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	84.5	50	150			J
Cadmium	0.0019	0.0020	0.002000	0	94.5	50	150			J
Chromium	0.0058	0.0060	0.006000	0	97.5	50	150			J
Copper	0.0043	0.0060	0.006000	0	71.0	50	150			J
Iron	0.022	0.020	0.02000	0	110	50	150			
Manganese	0.0021	0.0020	0.002000	0	105	50	150			
Silver	0.0055	0.0050	0.005000	0	110	50	150			
Zinc	0.0057	0.010	0.005000	0	114	50	150			J

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609076

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID MB-27573	SampType: MBLK		TestCode: EPA Method 200.7: Total Metals							
Client ID: PBW	Batch ID: 27573		RunNo: 37369							
Prep Date: 9/19/2016	Analysis Date: 9/21/2016		SeqNo: 1161340		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-27573	SampType: LCS		TestCode: EPA Method 200.7: Total Metals							
Client ID: LCSW	Batch ID: 27573		RunNo: 37369							
Prep Date: 9/19/2016	Analysis Date: 9/21/2016		SeqNo: 1161341		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.6	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.9	85	115			
Chromium	0.48	0.0060	0.5000	0	95.8	85	115			
Copper	0.48	0.0060	0.5000	0	95.1	85	115			
Iron	0.48	0.020	0.5000	0	95.3	85	115			
Manganese	0.47	0.0020	0.5000	0	94.6	85	115			
Silver	0.091	0.0050	0.1000	0	91.1	85	115			
Zinc	0.47	0.010	0.5000	0	94.7	85	115			

Sample ID LLCS-27573	SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals							
Client ID: BatchQC	Batch ID: 27573		RunNo: 37369							
Prep Date: 9/19/2016	Analysis Date: 9/21/2016		SeqNo: 1161342		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0022	0.0020	0.002000	0	110	50	150			
Cadmium	0.0020	0.0020	0.002000	0	99.5	50	150			J
Chromium	0.0064	0.0060	0.006000	0	106	50	150			
Copper	0.0057	0.0060	0.006000	0	94.8	50	150			J
Manganese	0.0021	0.0020	0.002000	0	106	50	150			
Silver	0.0049	0.0050	0.005000	0	98.6	50	150			J
Zinc	0.0059	0.010	0.005000	0	117	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#: 1609076

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	LLLCS-27573	SampType:	LCSLL	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	27573	RunNo:	37369					
Prep Date:	9/19/2016	Analysis Date:	9/21/2016	SeqNo:	1161352	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.022	0.020	0.02000	0	111	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#: 1609076

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: C37166			RunNo: 37166						
Prep Date:	Analysis Date: 9/13/2016			SeqNo: 1152868			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.9	85	115			
Lead	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: D37166			RunNo: 37166						
Prep Date:	Analysis Date: 9/13/2016			SeqNo: 1152869			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.5	85	115			
Lead	0.012	0.00050	0.01250	0	95.4	85	115			

Sample ID LCSLL	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: C37166			RunNo: 37166						
Prep Date:	Analysis Date: 9/13/2016			SeqNo: 1152871			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00088	0.0010	0.001000	0	88.5	50	150			J
Lead	0.00044	0.00050	0.0005000	0	88.8	50	150			J

Sample ID LCSLL	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: D37166			RunNo: 37166						
Prep Date:	Analysis Date: 9/13/2016			SeqNo: 1152872			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	0.00048	0.00050	0.0005000	0	95.9	50	150			J

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: C37166			RunNo: 37166						
Prep Date:	Analysis Date: 9/13/2016			SeqNo: 1152874			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								

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: D37166			RunNo: 37166						
Prep Date:	Analysis Date: 9/13/2016			SeqNo: 1152875			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#: 1609076

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID MB	SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals							
Client ID: PBW	Batch ID: D37166		RunNo: 37166							
Prep Date:	Analysis Date: 9/13/2016		SeqNo: 1152875		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								

Sample ID LCS	SampType: LCS		TestCode: EPA 200.8: Dissolved Metals							
Client ID: LCSW	Batch ID: C37239		RunNo: 37239							
Prep Date:	Analysis Date: 9/15/2016		SeqNo: 1155793		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.9	85	115			
Lead	0.012	0.00050	0.01250	0	98.5	85	115			
Selenium	0.023	0.0010	0.02500	0	93.0	85	115			
Uranium	0.012	0.00050	0.01250	0	98.2	85	115			

Sample ID LCSLL	SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals							
Client ID: BatchQC	Batch ID: C37239		RunNo: 37239							
Prep Date:	Analysis Date: 9/15/2016		SeqNo: 1155795		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	101	50	150			
Lead	0.00053	0.00050	0.0005000	0	107	50	150			
Selenium	0.00097	0.0010	0.001000	0	96.7	50	150			J
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: C37239		RunNo: 37239							
Prep Date:	Analysis Date: 9/15/2016		SeqNo: 1155797		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: B37281		RunNo: 37281							
Prep Date:	Analysis Date: 9/16/2016		SeqNo: 1157676		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.023	0.0010	0.02500	0	93.7	85	115			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609076

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	LCSLL			SampType:	LCSLL			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	B37281			RunNo:	37281		
Prep Date:				Analysis Date:	9/16/2016			SeqNo:	1157677	Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Selenium	0.00096	0.0010	0.001000	0	96.3	50	150			J	

Sample ID	MB			SampType:	MBLK			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	PBW			Batch ID:	B37281			RunNo:	37281		
Prep Date:				Analysis Date:	9/16/2016			SeqNo:	1157678	Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Selenium	ND	0.0010									

Sample ID	LCS			SampType:	LCS			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	LCSW			Batch ID:	B37327			RunNo:	37327		
Prep Date:				Analysis Date:	9/20/2016			SeqNo:	1160758	Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Selenium	0.024	0.0010	0.02500	0	95.3	85	115				

Sample ID	LLCS			SampType:	LCSLL			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC			Batch ID:	B37327			RunNo:	37327		
Prep Date:				Analysis Date:	9/20/2016			SeqNo:	1160760	Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Selenium	0.00098	0.0010	0.001000	0	98.0	50	150			J	

Sample ID	MB			SampType:	MBLK			TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	PBW			Batch ID:	B37327			RunNo:	37327		
Prep Date:				Analysis Date:	9/20/2016			SeqNo:	1160762	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#: 1609076

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	1609076-003CMSLL			SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total		
Client ID:	OW-13			Batch ID:	27450		RunNo:	37201		
Prep Date:	9/12/2016			Analysis Date:	9/14/2016		SeqNo:	1154586		Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0.001538	103	70	130			
Lead	0.013	0.00050	0.01250	0	105	70	130			
Selenium	0.025	0.0010	0.02500	0.002106	92.4	70	130			

Sample ID	1609076-004CMSDL			SampType:	MSDLL		TestCode:	200.8 ICPMS Metals:Total		
Client ID:	OW-30			Batch ID:	27450		RunNo:	37201		
Prep Date:	9/12/2016			Analysis Date:	9/14/2016		SeqNo:	1154588		Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0010	0.02500	0.002758	102	70	130	0.395	20	
Lead	0.014	0.00050	0.01250	0.0002451	108	70	130	0.407	20	
Selenium	0.029	0.0010	0.02500	0.006396	90.0	70	130	0.134	20	

Sample ID	1609076-004CMSLL			SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total		
Client ID:	OW-30			Batch ID:	27450		RunNo:	37201		
Prep Date:	9/12/2016			Analysis Date:	9/14/2016		SeqNo:	1154589		Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0010	0.02500	0.002758	102	70	130			
Lead	0.014	0.00050	0.01250	0.0002451	108	70	130			
Selenium	0.029	0.0010	0.02500	0.006396	89.8	70	130			

Sample ID	MSLCS-27450			SampType:	LCS		TestCode:	200.8 ICPMS Metals:Total		
Client ID:	LCSW			Batch ID:	27450		RunNo:	37201		
Prep Date:	9/12/2016			Analysis Date:	9/14/2016		SeqNo:	1154603		Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.6	85	115			
Lead	0.012	0.00050	0.01250	0	96.3	85	115			
Selenium	0.023	0.0010	0.02500	0	92.8	85	115			
Uranium	0.012	0.00050	0.01250	0	95.3	85	115			

Sample ID	MSLLCS-27450			SampType:	LCSLL		TestCode:	200.8 ICPMS Metals:Total		
Client ID:	BatchQC			Batch ID:	27450		RunNo:	37201		
Prep Date:	9/12/2016			Analysis Date:	9/14/2016		SeqNo:	1154608		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	121	50	150			
Lead	0.00051	0.00050	0.0005000	0	103	50	150			
Selenium	0.00094	0.0010	0.001000	0	93.9	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#: 1609076

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	MSLLCS-27450			SampType:	LCSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	BatchQC			Batch ID:	27450			RunNo:	37201		
Prep Date:	9/12/2016			Analysis Date:	9/14/2016			SeqNo:	1154608		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.00049	0.00050	0.0005000	0	97.4	50	150			J	

Sample ID	MB-27450			SampType:	MBLK			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	PBW			Batch ID:	27450			RunNo:	37201		
Prep Date:	9/12/2016			Analysis Date:	9/14/2016			SeqNo:	1154613		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.00024	0.0010								J	
Lead	ND	0.00050									
Selenium	ND	0.0010									
Uranium	ND	0.00050									

Sample ID	1609076-003CMSLL			SampType:	MSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	OW-13			Batch ID:	27450			RunNo:	37309		
Prep Date:	9/12/2016			Analysis Date:	9/19/2016			SeqNo:	1158645		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.031	0.0025	0.01250	0.01770	110	70	130				

Sample ID	1609076-004CMSDL			SampType:	MSDLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	OW-30			Batch ID:	27450			RunNo:	37309		
Prep Date:	9/12/2016			Analysis Date:	9/19/2016			SeqNo:	1158647		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.062	0.0025	0.01250	0.04807	112	70	130	0.469	20		

Sample ID	1609076-004CMSLL			SampType:	MSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	OW-30			Batch ID:	27450			RunNo:	37309		
Prep Date:	9/12/2016			Analysis Date:	9/19/2016			SeqNo:	1158648		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.062	0.0025	0.01250	0.04807	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#: 1609076

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID MB	SampType: mblk			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R36995			RunNo: 36995						
Prep Date:	Analysis Date: 9/2/2016			SeqNo: 1146458		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: R36995			RunNo: 36995						
Prep Date:	Analysis Date: 9/2/2016			SeqNo: 1146459		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	101	90	110			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609076

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	1609076-001BMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range					
Client ID:	OW-14	Batch ID:	27339	RunNo:	37010					
Prep Date:	9/6/2016	Analysis Date:	9/6/2016	SeqNo:	1146955	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	9.7	1.0	5.000	4.052	112	79.6	148			
Surr: DNOP	0.64		0.5000		128	77.1	144			

Sample ID	1609076-001BMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range					
Client ID:	OW-14	Batch ID:	27339	RunNo:	37010					
Prep Date:	9/6/2016	Analysis Date:	9/6/2016	SeqNo:	1146956	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	10	1.0	5.000	4.052	120	79.6	148	3.85	20	
Surr: DNOP	0.66		0.5000		131	77.1	144	0	0	

Sample ID	LCS-27339	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW	Batch ID:	27339	RunNo:	37010					
Prep Date:	9/6/2016	Analysis Date:	9/6/2016	SeqNo:	1146966	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	105	62.8	153			
Surr: DNOP	0.62		0.5000		124	77.1	144			

Sample ID	MB-27339	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range					
Client ID:	PBW	Batch ID:	27339	RunNo:	37010					
Prep Date:	9/6/2016	Analysis Date:	9/6/2016	SeqNo:	1146967	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	1.2		1.000		122	77.1	144			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609076

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID 1609076-001AMS	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: OW-14	Batch ID: R37021		RunNo: 37021							
Prep Date:	Analysis Date: 9/6/2016		SeqNo: 1147557		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	52	2.5	25.00	30.63	84.4	70	130			
Surr: BFB	900		1000		89.8	66.4	120			

Sample ID 1609076-001AMSD	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: OW-14	Batch ID: R37021		RunNo: 37021							
Prep Date:	Analysis Date: 9/6/2016		SeqNo: 1147558		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	49	2.5	25.00	30.63	75.0	70	130	4.63	20	
Surr: BFB	900		1000		89.5	66.4	120	0	0	

Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: R37021		RunNo: 37021							
Prep Date:	Analysis Date: 9/6/2016		SeqNo: 1147571		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	101	80	120			
Surr: BFB	18		20.00		88.0	66.4	120			

Sample ID 5ML RB	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: R37021		RunNo: 37021							
Prep Date:	Analysis Date: 9/6/2016		SeqNo: 1147572		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	16		20.00		82.2	66.4	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609076

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R36950			RunNo: 36950					
Prep Date:		Analysis Date: 9/2/2016			SeqNo: 1146321		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.8	70	130			
Toluene	20	1.0	20.00	0	99.3	70	130			
Chlorobenzene	20	1.0	20.00	0	99.9	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	90.3	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	92.5	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.7	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		94.9	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.0	70	130			
Surr: Toluene-d8	9.7		10.00		97.3	70	130			

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R36950			RunNo: 36950					
Prep Date:		Analysis Date: 9/2/2016			SeqNo: 1146322		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	0.23	4.0								J
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609076

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	rb	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID: R36950				RunNo: 36950				
Prep Date:		Analysis Date: 9/2/2016				SeqNo: 1146322	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.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609076

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID rb	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES					
Client ID: PBW	Batch ID: R36950				RunNo: 36950					
Prep Date:	Analysis Date: 9/2/2016				SeqNo: 1146322		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.2	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.8	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.9	70	130			
Surr: Toluene-d8	9.8		10.00		97.7	70	130			

Sample ID 100NG LCS	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES					
Client ID: LCSW	Batch ID: R37011				RunNo: 37011					
Prep Date:	Analysis Date: 9/6/2016				SeqNo: 1146952		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.1	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.9		10.00		98.8	70	130			
Surr: Toluene-d8	10		10.00		99.8	70	130			

Sample ID VSF FRIDGE	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES					
Client ID: PBW	Batch ID: R37011				RunNo: 37011					
Prep Date:	Analysis Date: 9/6/2016				SeqNo: 1146953		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
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#: 1609076

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	mb-27341	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	27341	RunNo:	37106					
Prep Date:	9/6/2016	Analysis Date:	9/10/2016	SeqNo:	1150325	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	9.0	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	3.8	10								J
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	4.7	10								J
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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#: 1609076

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	mb-27341	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	27341	RunNo:	37106					
Prep Date:	9/6/2016	Analysis Date:	9/10/2016	SeqNo:	1150325	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	99		200.0		49.5	15	123			
Surr: Phenol-d5	98		200.0		49.2	4.13	124			
Surr: 2,4,6-Tribromophenol	120		200.0		60.0	18.4	134			
Surr: Nitrobenzene-d5	74		100.0		73.8	28.8	134			
Surr: 2-Fluorobiphenyl	71		100.0		71.3	35.9	125			
Surr: 4-Terphenyl-d14	41		100.0		41.5	15	146			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609076

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	Ics-27341		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles						
Client ID:	LCSW		Batch ID: 27341		RunNo: 37106						
Prep Date:	9/6/2016		Analysis Date: 9/10/2016		SeqNo: 1150326		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Acenaphthene	73	10	100.0	0	73.1	35	113				
4-Chloro-3-methylphenol	100	10	200.0	0	51.3	40.7	114				
2-Chlorophenol	100	10	200.0	0	51.0	37.6	113				
1,4-Dichlorobenzene	49	10	100.0	0	48.6	37.7	106				
2,4-Dinitrotoluene	80	10	100.0	0	79.5	37	91				
N-Nitrosodi-n-propylamine	88	10	100.0	0	88.2	45.4	105				
4-Nitrophenol	67	10	200.0	0	33.6	33.4	104				
Pentachlorophenol	98	20	200.0	0	49.0	29.5	94.9				
Phenol	76	10	200.0	0	38.1	30.6	119				
Pyrene	84	10	100.0	0	84.0	26.2	120				
1,2,4-Trichlorobenzene	56	10	100.0	0	56.2	39.9	125				
Surr: 2-Fluorophenol	83		200.0		41.5	15	123				
Surr: Phenol-d5	86		200.0		42.8	4.13	124				
Surr: 2,4,6-Tribromophenol	120		200.0		59.1	18.4	134				
Surr: Nitrobenzene-d5	81		100.0		80.8	28.8	134				
Surr: 2-Fluorobiphenyl	73		100.0		73.5	35.9	125				
Surr: 4-Terphenyl-d14	52		100.0		52.3	15	146				

Sample ID	Icsd-27341		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 27341		RunNo: 37109					
Prep Date:	9/6/2016		Analysis Date: 9/10/2016		SeqNo: 1150577		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	97	10	100.0	0	97.4	35	113	28.5	46.7	
4-Chloro-3-methylphenol	150	10	200.0	0	74.0	40.7	114	36.2	29.4	R
2-Chlorophenol	130	10	200.0	0	64.6	37.6	113	23.5	38.7	
1,4-Dichlorobenzene	58	10	100.0	0	58.4	37.7	106	18.2	25.3	
2,4-Dinitrotoluene	100	10	100.0	0	102	37	91	25.1	34.7	S
N-Nitrosodi-n-propylamine	100	10	100.0	0	101	45.4	105	13.7	30.2	
4-Nitrophenol	110	10	200.0	0	54.0	33.4	104	46.6	42.2	R
Pentachlorophenol	120	20	200.0	0	59.3	29.5	94.9	18.9	35.5	
Phenol	100	10	200.0	0	52.1	30.6	119	31.1	25.5	R
Pyrene	93	10	100.0	0	93.0	26.2	120	10.2	27.1	
1,2,4-Trichlorobenzene	71	10	100.0	0	71.1	39.9	125	23.4	43.3	
Surr: 2-Fluorophenol	110		200.0		54.5	15	123	0	0	
Surr: Phenol-d5	110		200.0		55.7	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	150		200.0		74.5	18.4	134	0	0	
Surr: Nitrobenzene-d5	99		100.0		98.7	28.8	134	0	0	
Surr: 2-Fluorobiphenyl	86		100.0		86.5	35.9	125	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#: 1609076

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	Icsd-27341		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 27341		RunNo: 37109					
Prep Date:	9/6/2016		Analysis Date: 9/10/2016		SeqNo: 1150577		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	60		100.0		60.3	15	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 18, 2016

Cheryl Johnson

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

RE: 2016 Annual/Quarterly

OrderNo.: 1609078

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 7 sample(s) on 9/1/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 10:46:00 AM

Lab ID: 1609078-001

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/6/2016 3:32:14 PM	27339
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/6/2016 3:32:14 PM	27339
Surr: DNOP	135	0	77.1-144		%Rec	1	9/6/2016 3:32:14 PM	27339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	9/6/2016 1:08:05 PM	R37021
Surr: BFB	83.0	0	66.4-120		%Rec	1	9/6/2016 1:08:05 PM	R37021
EPA METHOD 300.0: ANIONS							Analyst: MRA	
Fluoride	0.27	0.050	0.10		mg/L	1	9/14/2016 5:56:11 PM	R37182
Chloride	97	1.0	10		mg/L	20	9/3/2016 12:33:04 AM	R36994
Nitrogen, Nitrite (As N)	ND	0.052	0.10		mg/L	1	9/3/2016 12:20:39 AM	R36994
Bromide	1.1	0.044	0.10		mg/L	1	9/3/2016 12:20:39 AM	R36994
Nitrogen, Nitrate (As N)	10	0.81	2.0	*	mg/L	20	9/3/2016 12:33:04 AM	R36994
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/14/2016 5:56:11 PM	R37182
Sulfate	99	2.8	10		mg/L	20	9/3/2016 12:33:04 AM	R36994
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.13	0.0013	0.0020		mg/L	1	9/16/2016 11:49:28 AM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 11:49:28 AM	A37246
Calcium	100	0.50	1.0		mg/L	1	9/16/2016 11:49:28 AM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 11:49:28 AM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 11:49:28 AM	A37246
Iron	ND	0.020	0.020		mg/L	1	9/16/2016 11:49:28 AM	A37246
Magnesium	17	0.50	1.0		mg/L	1	9/16/2016 11:49:28 AM	A37246
Manganese	0.13	0.00032	0.0020	*	mg/L	1	9/16/2016 11:49:28 AM	A37246
Potassium	ND	0.50	1.0		mg/L	1	9/16/2016 11:49:28 AM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 11:49:28 AM	A37246
Sodium	340	2.5	5.0		mg/L	5	9/16/2016 11:51:27 AM	A37246
Zinc	0.37	0.0028	0.010		mg/L	1	9/16/2016 11:49:28 AM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: MED	
Barium	0.14	0.00079	0.0020		mg/L	1	9/21/2016 4:46:08 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 4:46:08 PM	27573
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 4:46:08 PM	27573
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 4:46:08 PM	27573
Iron	0.29	0.020	0.020		mg/L	1	9/21/2016 4:46:08 PM	27573
Manganese	0.25	0.00027	0.0020	*	mg/L	1	9/21/2016 4:46:08 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 4:46:08 PM	27573
Zinc	0.0028	0.0027	0.010	J	mg/L	1	9/21/2016 4:46:08 PM	27573

EPA 200.8: DISSOLVED METALS

Analyst: **DBD**

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 10:46:00 AM

Lab ID: 1609078-001

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: DBD	
Arsenic	ND	0.0028	0.020		mg/L	20	9/16/2016 3:43:21 PM	B37281
Lead	ND	0.00017	0.00050		mg/L	1	9/13/2016 11:15:02 PM	D37166
Selenium	0.0083	0.0042	0.020	J	mg/L	20	9/16/2016 3:43:21 PM	B37281
Uranium	0.013	0.00026	0.0025		mg/L	5	9/15/2016 5:51:39 PM	D37239
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0041	0.0021	0.010	J	mg/L	10	10/3/2016 2:43:56 PM	27450
Lead	0.00047	0.000081	0.00050	J	mg/L	1	9/14/2016 5:45:59 PM	27450
Selenium	ND	0.020	0.020		mg/L	20	10/3/2016 3:11:12 PM	27450
Uranium	0.019	0.00017	0.00050		mg/L	1	9/14/2016 5:45:59 PM	27450
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Methyl tert-butyl ether (MTBE)	1.8	0.21	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Acetone	ND	4.9	10		µg/L	1	9/2/2016 10:44:00 PM	A36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 10:44:00 PM	A36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 10:44:00 PM	A36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 10:44:00 PM	A36950

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 10:46:00 AM

Lab ID: 1609078-001

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 10:44:00 PM	A36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 10:44:00 PM	A36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 10:44:00 PM	A36950
Surr: 1,2-Dichloroethane-d4	105	0	70-130		%Rec	1	9/2/2016 10:44:00 PM	A36950
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	9/2/2016 10:44:00 PM	A36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 10:46:00 AM

Lab ID: 1609078-001

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Surr: Dibromofluoromethane	103	0	70-130		%Rec	1	9/2/2016 10:44:00 PM	A36950
Surr: Toluene-d8	103	0	70-130		%Rec	1	9/2/2016 10:44:00 PM	A36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 11:05:00 AM

Lab ID: 1609078-002

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	1.1	0.69	1.0		mg/L	1	9/6/2016 3:54:07 PM	27339
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/6/2016 3:54:07 PM	27339
Surr: DNOP	134	0	77.1-144		%Rec	1	9/6/2016 3:54:07 PM	27339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA	
Gasoline Range Organics (GRO)	0.75	0.025	0.050		mg/L	1	9/6/2016 1:32:20 PM	R37021
Surr: BFB	151	0	66.4-120	S	%Rec	1	9/6/2016 1:32:20 PM	R37021
EPA METHOD 300.0: ANIONS							Analyst: MRA	
Fluoride	1.7	0.25	0.50		mg/L	5	9/14/2016 6:08:36 PM	R37182
Chloride	300	1.0	10		mg/L	20	9/3/2016 1:22:43 AM	R36994
Nitrogen, Nitrite (As N)	ND	0.26	0.50		mg/L	5	9/3/2016 1:10:18 AM	R36994
Bromide	1.3	0.22	0.50		mg/L	5	9/3/2016 1:10:18 AM	R36994
Nitrogen, Nitrate (As N)	ND	0.20	0.50		mg/L	5	9/3/2016 1:10:18 AM	R36994
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5	H	mg/L	5	9/14/2016 6:08:36 PM	R37182
Sulfate	7.8	0.71	2.5		mg/L	5	9/3/2016 1:10:18 AM	R36994
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	1.4	0.0066	0.010		mg/L	5	9/16/2016 11:55:07 AM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 11:53:25 AM	A37246
Calcium	82	0.50	1.0		mg/L	1	9/16/2016 11:53:25 AM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 11:53:25 AM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 11:53:25 AM	A37246
Iron	1.6	0.10	0.10	*	mg/L	5	9/16/2016 11:55:07 AM	A37246
Magnesium	15	0.50	1.0		mg/L	1	9/16/2016 11:53:25 AM	A37246
Manganese	1.1	0.0016	0.010	*	mg/L	5	9/16/2016 11:55:07 AM	A37246
Potassium	ND	0.50	1.0		mg/L	1	9/16/2016 11:53:25 AM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 11:53:25 AM	A37246
Sodium	370	2.5	5.0		mg/L	5	9/16/2016 11:55:07 AM	A37246
Zinc	0.17	0.0028	0.010		mg/L	1	9/16/2016 11:53:25 AM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	2.0	0.0040	0.010		mg/L	5	9/29/2016 1:43:39 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 4:48:02 PM	27573
Chromium	0.011	0.0027	0.0060		mg/L	1	9/21/2016 4:48:02 PM	27573
Copper	0.010	0.0030	0.0060		mg/L	1	9/21/2016 4:48:02 PM	27573
Iron	7.8	0.20	0.20	*	mg/L	10	10/3/2016 1:30:55 PM	27573
Manganese	1.4	0.0014	0.010	*	mg/L	5	9/29/2016 1:43:39 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 4:48:02 PM	27573
Zinc	0.057	0.0027	0.010		mg/L	1	9/21/2016 4:48:02 PM	27573

EPA 200.8: DISSOLVED METALS

Analyst: **DBD**

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 11:05:00 AM

Lab ID: 1609078-002

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: DBD	
Arsenic	0.0075	0.00014	0.0010		mg/L	1	9/13/2016 11:18:05 PM	D37166
Lead	ND	0.00017	0.00050		mg/L	1	9/13/2016 11:18:05 PM	D37166
Selenium	0.0066	0.0042	0.020	J	mg/L	20	9/16/2016 3:46:25 PM	B37281
Uranium	0.00031	0.00026	0.0025	J	mg/L	5	9/15/2016 5:54:42 PM	D37239
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0087	0.0021	0.010	J	mg/L	10	10/3/2016 2:49:04 PM	27450
Lead	0.0081	0.000081	0.00050		mg/L	1	9/14/2016 5:55:04 PM	27450
Selenium	0.011	0.0037	0.020	J	mg/L	20	10/3/2016 3:16:20 PM	27450
Uranium	0.0013	0.00017	0.00050		mg/L	1	9/14/2016 5:55:04 PM	27450
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	5.0	0.096	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Toluene	ND	0.12	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Ethylbenzene	1.5	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Methyl tert-butyl ether (MTBE)	180	0.21	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Naphthalene	2.1	0.093	2.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1-Methylnaphthalene	2.0	0.20	4.0	J	µg/L	1	9/6/2016 1:51:00 PM	R37011
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Acetone	15	4.9	10		µg/L	1	9/6/2016 1:51:00 PM	R37011
Bromobenzene	ND	0.098	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Bromoform	ND	0.10	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Bromomethane	ND	0.78	3.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
2-Butanone	ND	0.74	10		µg/L	1	9/6/2016 1:51:00 PM	R37011
Carbon disulfide	ND	0.60	10		µg/L	1	9/6/2016 1:51:00 PM	R37011
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Chloroethane	ND	0.19	2.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Chloroform	ND	0.089	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Chloromethane	ND	0.21	3.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/6/2016 1:51:00 PM	R37011

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 11:05:00 AM

Lab ID: 1609078-002

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Dibromomethane	ND	0.12	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,1-Dichloroethane	0.23	0.11	1.0	J	µg/L	1	9/6/2016 1:51:00 PM	R37011
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
2-Hexanone	ND	0.84	10		µg/L	1	9/6/2016 1:51:00 PM	R37011
Isopropylbenzene	0.42	0.10	1.0	J	µg/L	1	9/6/2016 1:51:00 PM	R37011
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/6/2016 1:51:00 PM	R37011
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
n-Butylbenzene	0.17	0.16	3.0	J	µg/L	1	9/6/2016 1:51:00 PM	R37011
n-Propylbenzene	0.26	0.13	1.0	J	µg/L	1	9/6/2016 1:51:00 PM	R37011
sec-Butylbenzene	0.36	0.12	1.0	J	µg/L	1	9/6/2016 1:51:00 PM	R37011
Styrene	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
tert-Butylbenzene	0.24	0.12	1.0	J	µg/L	1	9/6/2016 1:51:00 PM	R37011
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/6/2016 1:51:00 PM	R37011
Surr: 1,2-Dichloroethane-d4	108	0	70-130		%Rec	1	9/6/2016 1:51:00 PM	R37011
Surr: 4-Bromofluorobenzene	107	0	70-130		%Rec	1	9/6/2016 1:51:00 PM	R37011

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 11:05:00 AM

Lab ID: 1609078-002

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Surr: Dibromofluoromethane	105	0	70-130		%Rec	1	9/6/2016 1:51:00 PM	R37011
Surr: Toluene-d8	99.7	0	70-130		%Rec	1	9/6/2016 1:51:00 PM	R37011

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 11:20:00 AM

Lab ID: 1609078-003

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/6/2016 4:16:06 PM	27339
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/6/2016 4:16:06 PM	27339
Surr: DNOP	135	0	77.1-144		%Rec	1	9/6/2016 4:16:06 PM	27339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA	
Gasoline Range Organics (GRO)	0.18	0.025	0.050		mg/L	1	9/6/2016 1:56:36 PM	R37021
Surr: BFB	104	0	66.4-120		%Rec	1	9/6/2016 1:56:36 PM	R37021
EPA METHOD 300.0: ANIONS							Analyst: MRA	
Fluoride	0.86	0.050	0.10		mg/L	1	9/14/2016 6:21:01 PM	R37182
Chloride	210	1.0	10		mg/L	20	9/3/2016 1:47:32 AM	R36994
Nitrogen, Nitrite (As N)	ND	0.052	0.10		mg/L	1	9/3/2016 1:35:08 AM	R36994
Bromide	1.2	0.044	0.10		mg/L	1	9/3/2016 1:35:08 AM	R36994
Nitrogen, Nitrate (As N)	0.25	0.041	0.10		mg/L	1	9/3/2016 1:35:08 AM	R36994
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/14/2016 6:21:01 PM	R37182
Sulfate	36	0.14	0.50		mg/L	1	9/3/2016 1:35:08 AM	R36994
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	1.0	0.0066	0.010		mg/L	5	9/16/2016 11:59:03 AM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 11:57:08 AM	A37246
Calcium	86	0.50	1.0		mg/L	1	9/16/2016 11:57:08 AM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 11:57:08 AM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 11:57:08 AM	A37246
Iron	0.059	0.020	0.020		mg/L	1	9/16/2016 11:57:08 AM	A37246
Magnesium	14	0.50	1.0		mg/L	1	9/16/2016 11:57:08 AM	A37246
Manganese	1.9	0.0016	0.010	*	mg/L	5	9/16/2016 11:59:03 AM	A37246
Potassium	0.62	0.50	1.0	J	mg/L	1	9/16/2016 11:57:08 AM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 11:57:08 AM	A37246
Sodium	280	2.5	5.0		mg/L	5	9/16/2016 11:59:03 AM	A37246
Zinc	0.041	0.0028	0.010		mg/L	1	9/16/2016 11:57:08 AM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: MED	
Barium	0.95	0.00079	0.0020		mg/L	1	9/21/2016 4:49:45 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 4:49:45 PM	27573
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 4:49:45 PM	27573
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 4:49:45 PM	27573
Iron	0.93	0.020	0.020	*	mg/L	1	9/21/2016 4:49:45 PM	27573
Manganese	2.7	0.0014	0.010	*	mg/L	5	9/29/2016 1:51:21 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 4:49:45 PM	27573
Zinc	0.0067	0.0027	0.010	J	mg/L	1	9/21/2016 4:49:45 PM	27573

EPA 200.8: DISSOLVED METALS

Analyst: **DBD**

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 11:20:00 AM

Lab ID: 1609078-003

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: DBD	
Arsenic	0.0029	0.00014	0.0010		mg/L	1	9/13/2016 11:21:09 PM	D37166
Lead	ND	0.00017	0.00050		mg/L	1	9/13/2016 11:21:09 PM	D37166
Selenium	0.0049	0.0011	0.0050	J	mg/L	5	9/15/2016 5:57:45 PM	D37239
Uranium	0.0075	0.00026	0.0025		mg/L	5	9/15/2016 5:57:45 PM	D37239
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0050	0.0042	0.020	J	mg/L	20	10/3/2016 5:47:56 PM	27450
Lead	0.00044	0.000081	0.00050	J	mg/L	1	9/14/2016 5:58:05 PM	27450
Selenium	ND	0.020	0.020		mg/L	20	10/3/2016 3:26:38 PM	27450
Uranium	0.014	0.00017	0.00050		mg/L	1	9/14/2016 5:58:05 PM	27450
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	7.1	0.096	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Ethylbenzene	3.2	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Methyl tert-butyl ether (MTBE)	45	0.21	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Naphthalene	5.0	0.093	2.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1-Methylnaphthalene	2.8	0.20	4.0	J	µg/L	1	9/2/2016 11:31:00 PM	A36950
2-Methylnaphthalene	1.8	0.16	4.0	J	µg/L	1	9/2/2016 11:31:00 PM	A36950
Acetone	9.7	4.9	10	J	µg/L	1	9/2/2016 11:31:00 PM	A36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 11:31:00 PM	A36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 11:31:00 PM	A36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 11:31:00 PM	A36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 11:20:00 AM

Lab ID: 1609078-003

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 11:31:00 PM	A36950
Isopropylbenzene	0.25	0.10	1.0	J	µg/L	1	9/2/2016 11:31:00 PM	A36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 11:31:00 PM	A36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
n-Propylbenzene	0.26	0.13	1.0	J	µg/L	1	9/2/2016 11:31:00 PM	A36950
sec-Butylbenzene	0.18	0.12	1.0	J	µg/L	1	9/2/2016 11:31:00 PM	A36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
tert-Butylbenzene	0.20	0.12	1.0	J	µg/L	1	9/2/2016 11:31:00 PM	A36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 11:31:00 PM	A36950
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	9/2/2016 11:31:00 PM	A36950
Surr: 4-Bromofluorobenzene	106	0	70-130		%Rec	1	9/2/2016 11:31:00 PM	A36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 11:20:00 AM

Lab ID: 1609078-003

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Surr: Dibromofluoromethane	99.1	0	70-130		%Rec	1	9/2/2016 11:31:00 PM	A36950
Surr: Toluene-d8	102	0	70-130		%Rec	1	9/2/2016 11:31:00 PM	A36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 11:30:00 AM

Lab ID: 1609078-004

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/6/2016 4:37:53 PM	27339
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/6/2016 4:37:53 PM	27339
Surr: DNOP	135	0	77.1-144		%Rec	1	9/6/2016 4:37:53 PM	27339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	9/6/2016 2:20:53 PM	R37021
Surr: BFB	89.9	0	66.4-120		%Rec	1	9/6/2016 2:20:53 PM	R37021
EPA METHOD 300.0: ANIONS							Analyst: MRA	
Fluoride	2.1	0.25	0.50		mg/L	5	9/14/2016 6:33:26 PM	R37182
Chloride	310	1.0	10		mg/L	20	9/3/2016 2:12:21 AM	R36994
Nitrogen, Nitrite (As N)	ND	0.26	0.50		mg/L	5	9/3/2016 1:59:57 AM	R36994
Bromide	1.7	0.22	0.50		mg/L	5	9/3/2016 1:59:57 AM	R36994
Nitrogen, Nitrate (As N)	5.0	0.20	0.50		mg/L	5	9/3/2016 1:59:57 AM	R36994
Phosphorus, Orthophosphate (As P)	1.1	0.38	2.5	JH	mg/L	5	9/14/2016 6:33:26 PM	R37182
Sulfate	210	0.71	2.5		mg/L	5	9/3/2016 1:59:57 AM	R36994
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.13	0.0013	0.0020		mg/L	1	9/16/2016 12:01:00 PM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 12:01:00 PM	A37246
Calcium	23	0.50	1.0		mg/L	1	9/16/2016 12:01:00 PM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 12:01:00 PM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 12:01:00 PM	A37246
Iron	0.31	0.020	0.020	*	mg/L	1	9/16/2016 12:01:00 PM	A37246
Magnesium	3.0	0.50	1.0		mg/L	1	9/16/2016 12:01:00 PM	A37246
Manganese	0.11	0.00032	0.0020	*	mg/L	1	9/16/2016 12:01:00 PM	A37246
Potassium	2.4	0.50	1.0		mg/L	1	9/16/2016 12:01:00 PM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 12:01:00 PM	A37246
Sodium	440	2.5	5.0		mg/L	5	9/16/2016 12:03:08 PM	A37246
Zinc	0.047	0.0028	0.010		mg/L	1	9/16/2016 12:01:00 PM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: MED	
Barium	0.98	0.00079	0.0020		mg/L	1	9/21/2016 4:51:28 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 4:51:28 PM	27573
Chromium	0.025	0.0027	0.0060		mg/L	1	9/21/2016 4:51:28 PM	27573
Copper	0.030	0.0030	0.0060		mg/L	1	9/21/2016 4:51:28 PM	27573
Iron	11	0.40	0.40	*	mg/L	20	9/29/2016 1:53:14 PM	27573
Manganese	0.96	0.00027	0.0020	*	mg/L	1	9/21/2016 4:51:28 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 4:51:28 PM	27573
Zinc	0.15	0.0027	0.010		mg/L	1	9/21/2016 4:51:28 PM	27573

EPA 200.8: DISSOLVED METALS

Analyst: **DBD**

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 11:30:00 AM

Lab ID: 1609078-004

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: DBD	
Arsenic	0.0039	0.0028	0.020	J	mg/L	20	9/16/2016 3:49:28 PM	B37281
Lead	0.0010	0.00084	0.0025	J	mg/L	5	9/15/2016 6:00:49 PM	D37239
Selenium	0.0096	0.0042	0.020	J	mg/L	20	9/16/2016 3:49:28 PM	B37281
Uranium	0.023	0.00026	0.0025		mg/L	5	9/15/2016 6:00:49 PM	D37239
200.8 ICPMS METALS:TOTAL							Analyst: DBD	
Arsenic	0.0048	0.0021	0.010	J	mg/L	10	9/16/2016 6:46:36 PM	27450
Lead	0.025	0.000081	0.00050	*	mg/L	1	9/14/2016 6:01:05 PM	27450
Selenium	0.0086	0.0019	0.010	J	mg/L	10	9/16/2016 6:46:36 PM	27450
Uranium	0.029	0.00087	0.0025		mg/L	5	9/19/2016 3:53:01 PM	27450
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Methyl tert-butyl ether (MTBE)	8.4	0.21	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Naphthalene	0.10	0.093	2.0	J	µg/L	1	9/2/2016 11:54:00 PM	A36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Acetone	11	4.9	10		µg/L	1	9/2/2016 11:54:00 PM	A36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 11:54:00 PM	A36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 11:54:00 PM	A36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 11:54:00 PM	A36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 11:30:00 AM

Lab ID: 1609078-004

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 11:54:00 PM	A36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 11:54:00 PM	A36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 11:54:00 PM	A36950
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	9/2/2016 11:54:00 PM	A36950
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	9/2/2016 11:54:00 PM	A36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-3

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 11:30:00 AM

Lab ID: 1609078-004

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Surr: Dibromofluoromethane	100	0	70-130		%Rec	1	9/2/2016 11:54:00 PM	A36950
Surr: Toluene-d8	103	0	70-130		%Rec	1	9/2/2016 11:54:00 PM	A36950

Refer to the QC Summary report and 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: OAPIS-1

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 12:20:00 PM

Lab ID: 1609078-005

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	9.5	0.69	1.0		mg/L	1	9/6/2016 4:59:30 PM	27339
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/6/2016 4:59:30 PM	27339
Surr: DNOP	132	0	77.1-144		%Rec	1	9/6/2016 4:59:30 PM	27339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA	
Gasoline Range Organics (GRO)	1.7	0.13	0.25		mg/L	5	9/7/2016 11:42:20 AM	R37047
Surr: BFB	121	0	66.4-120	S	%Rec	5	9/7/2016 11:42:20 AM	R37047
EPA METHOD 300.0: ANIONS							Analyst: MRA	
Fluoride	1.2	0.25	0.50		mg/L	5	9/14/2016 7:10:39 PM	A37205
Chloride	1900	10	100		mg/L	200	9/14/2016 7:23:04 PM	A37205
Nitrogen, Nitrite (As N)	ND	0.26	0.50		mg/L	5	9/3/2016 2:24:45 AM	R36994
Bromide	4.7	0.22	0.50		mg/L	5	9/3/2016 2:24:45 AM	R36994
Nitrogen, Nitrate (As N)	ND	0.20	0.50		mg/L	5	9/3/2016 2:24:45 AM	R36994
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5	H	mg/L	5	9/14/2016 7:10:39 PM	A37205
Sulfate	14	0.71	2.5		mg/L	5	9/3/2016 2:24:45 AM	R36994
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.85	0.0013	0.0020		mg/L	1	9/16/2016 12:05:01 PM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 12:05:01 PM	A37246
Calcium	170	2.5	5.0		mg/L	5	9/16/2016 12:06:50 PM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 12:05:01 PM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 12:05:01 PM	A37246
Iron	7.5	0.40	0.40	*	mg/L	20	9/19/2016 3:33:17 PM	B37295
Magnesium	33	0.50	1.0		mg/L	1	9/16/2016 12:05:01 PM	A37246
Manganese	1.8	0.0016	0.010	*	mg/L	5	9/16/2016 12:06:50 PM	A37246
Potassium	3.8	0.50	1.0		mg/L	1	9/16/2016 12:05:01 PM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 12:05:01 PM	A37246
Sodium	1400	10	20		mg/L	20	9/19/2016 3:33:17 PM	B37295
Zinc	0.0059	0.0028	0.010	J	mg/L	1	9/16/2016 12:05:01 PM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: MED	
Barium	0.89	0.00079	0.0020		mg/L	1	9/21/2016 4:53:26 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 4:53:26 PM	27573
Chromium	0.0053	0.0027	0.0060	J	mg/L	1	9/21/2016 4:53:26 PM	27573
Copper	0.014	0.0030	0.0060		mg/L	1	9/21/2016 4:53:26 PM	27573
Iron	9.1	0.20	0.20	*	mg/L	10	10/3/2016 1:32:55 PM	27573
Manganese	1.9	0.0014	0.010	*	mg/L	5	9/29/2016 1:54:59 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 4:53:26 PM	27573
Zinc	0.064	0.0027	0.010		mg/L	1	9/21/2016 4:53:26 PM	27573

EPA 200.8: DISSOLVED METALS

Analyst: **DBD**

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 12:20:00 PM

Lab ID: 1609078-005

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: DBD	
Arsenic	0.016	0.00069	0.0050	*	mg/L	5	9/15/2016 6:10:03 PM	D37239
Lead	0.00099	0.00084	0.0025	J	mg/L	5	9/15/2016 6:10:03 PM	D37239
Selenium	0.025	0.0011	0.0050		mg/L	5	9/15/2016 6:10:03 PM	D37239
Uranium	0.015	0.00026	0.0025		mg/L	5	9/15/2016 6:10:03 PM	D37239
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.018	0.0042	0.020	J*	mg/L	20	9/19/2016 3:56:02 PM	27450
Lead	0.015	0.000081	0.00050	*	mg/L	1	9/14/2016 6:04:06 PM	27450
Selenium	ND	0.050	0.050		mg/L	50	10/3/2016 3:31:47 PM	27450
Uranium	0.020	0.00017	0.00050		mg/L	1	9/14/2016 6:04:06 PM	27450
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC	
Acenaphthene	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Acenaphthylene	ND	2.4	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Aniline	ND	2.4	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Anthracene	ND	2.5	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Azobenzene	ND	2.7	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Benzoic acid	ND	2.6	20		µg/L	1	9/11/2016 12:53:46 AM	27341
Benzyl alcohol	ND	3.0	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Bis(2-ethylhexyl)phthalate	3.3	2.6	10	J	µg/L	1	9/11/2016 12:53:46 AM	27341
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Carbazole	ND	2.3	10		µg/L	1	9/11/2016 12:53:46 AM	27341
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
4-Chloroaniline	ND	2.7	10		µg/L	1	9/11/2016 12:53:46 AM	27341
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/11/2016 12:53:46 AM	27341
2-Chlorophenol	ND	2.2	10		µg/L	1	9/11/2016 12:53:46 AM	27341
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Chrysene	ND	2.8	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Di-n-octyl phthalate	3.3	2.0	10	J	µg/L	1	9/11/2016 12:53:46 AM	27341
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/11/2016 12:53:46 AM	27341

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 12:20:00 PM

Lab ID: 1609078-005

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC	
Dibenzofuran	ND	2.5	10		µg/L	1	9/11/2016 12:53:46 AM	27341
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/11/2016 12:53:46 AM	27341
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/11/2016 12:53:46 AM	27341
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/11/2016 12:53:46 AM	27341
3,3'-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Diethyl phthalate	ND	2.7	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Dimethyl phthalate	6.0	2.4	10	J	µg/L	1	9/11/2016 12:53:46 AM	27341
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/11/2016 12:53:46 AM	27341
2,4-Dimethylphenol	11	3.0	10		µg/L	1	9/11/2016 12:53:46 AM	27341
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/11/2016 12:53:46 AM	27341
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/11/2016 12:53:46 AM	27341
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/11/2016 12:53:46 AM	27341
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Fluoranthene	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Fluorene	ND	2.7	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Hexachloroethane	ND	2.4	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Isophorone	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
1-Methylnaphthalene	23	2.9	10		µg/L	1	9/11/2016 12:53:46 AM	27341
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/11/2016 12:53:46 AM	27341
2-Methylphenol	ND	2.5	10		µg/L	1	9/11/2016 12:53:46 AM	27341
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/11/2016 12:53:46 AM	27341
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/11/2016 12:53:46 AM	27341
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/11/2016 12:53:46 AM	27341
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Naphthalene	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
2-Nitroaniline	ND	2.8	10		µg/L	1	9/11/2016 12:53:46 AM	27341
3-Nitroaniline	ND	2.9	10		µg/L	1	9/11/2016 12:53:46 AM	27341
4-Nitroaniline	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Nitrobenzene	ND	2.8	10		µg/L	1	9/11/2016 12:53:46 AM	27341
2-Nitrophenol	ND	2.4	10		µg/L	1	9/11/2016 12:53:46 AM	27341
4-Nitrophenol	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Pentachlorophenol	ND	2.3	20		µg/L	1	9/11/2016 12:53:46 AM	27341
Phenanthrene	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Phenol	ND	2.0	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Pyrene	ND	3.1	10		µg/L	1	9/11/2016 12:53:46 AM	27341

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 12:20:00 PM

Lab ID: 1609078-005

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC	
Pyridine	ND	2.2	10		µg/L	1	9/11/2016 12:53:46 AM	27341
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/11/2016 12:53:46 AM	27341
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Surr: 2-Fluorophenol	32.4	0	15-123		%Rec	1	9/11/2016 12:53:46 AM	27341
Surr: Phenol-d5	34.2	0	15-124		%Rec	1	9/11/2016 12:53:46 AM	27341
Surr: 2,4,6-Tribromophenol	41.8	0	18.4-134		%Rec	1	9/11/2016 12:53:46 AM	27341
Surr: Nitrobenzene-d5	51.8	0	28.8-134		%Rec	1	9/11/2016 12:53:46 AM	27341
Surr: 2-Fluorobiphenyl	45.9	0	35.9-125		%Rec	1	9/11/2016 12:53:46 AM	27341
Surr: 4-Terphenyl-d14	37.4	0	15-146		%Rec	1	9/11/2016 12:53:46 AM	27341
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	180	0.48	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Toluene	1.5	0.59	5.0	J	µg/L	5	9/6/2016 11:30:00 AM	R37011
Ethylbenzene	23	0.56	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Methyl tert-butyl ether (MTBE)	240	1.1	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,2,4-Trimethylbenzene	12	0.55	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Naphthalene	3.0	0.46	10	J	µg/L	5	9/6/2016 11:30:00 AM	R37011
1-Methylnaphthalene	71	1.0	20		µg/L	5	9/6/2016 11:30:00 AM	R37011
2-Methylnaphthalene	ND	0.79	20		µg/L	5	9/6/2016 11:30:00 AM	R37011
Acetone	31	25	50	J	µg/L	5	9/6/2016 11:30:00 AM	R37011
Bromobenzene	ND	0.49	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Bromodichloromethane	ND	0.70	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Bromoform	ND	0.51	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Bromomethane	ND	3.9	15		µg/L	5	9/6/2016 11:30:00 AM	R37011
2-Butanone	ND	3.7	50		µg/L	5	9/6/2016 11:30:00 AM	R37011
Carbon disulfide	ND	3.0	50		µg/L	5	9/6/2016 11:30:00 AM	R37011
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Chlorobenzene	ND	0.57	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Chloroethane	ND	0.96	10		µg/L	5	9/6/2016 11:30:00 AM	R37011
Chloroform	ND	0.44	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Chloromethane	ND	1.1	15		µg/L	5	9/6/2016 11:30:00 AM	R37011
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	9/6/2016 11:30:00 AM	R37011

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 12:20:00 PM

Lab ID: 1609078-005

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Dibromochloromethane	ND	0.43	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Dibromomethane	ND	0.60	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,1-Dichloroethane	1.4	0.54	5.0	J	µg/L	5	9/6/2016 11:30:00 AM	R37011
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
2,2-Dichloropropane	ND	0.83	10		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
2-Hexanone	ND	4.2	50		µg/L	5	9/6/2016 11:30:00 AM	R37011
Isopropylbenzene	3.1	0.52	5.0	J	µg/L	5	9/6/2016 11:30:00 AM	R37011
4-Isopropyltoluene	0.99	0.70	5.0	J	µg/L	5	9/6/2016 11:30:00 AM	R37011
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	9/6/2016 11:30:00 AM	R37011
Methylene Chloride	ND	0.94	15		µg/L	5	9/6/2016 11:30:00 AM	R37011
n-Butylbenzene	1.0	0.80	15	J	µg/L	5	9/6/2016 11:30:00 AM	R37011
n-Propylbenzene	4.0	0.66	5.0	J	µg/L	5	9/6/2016 11:30:00 AM	R37011
sec-Butylbenzene	ND	0.62	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Styrene	ND	0.55	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	9/6/2016 11:30:00 AM	R37011
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	9/6/2016 11:30:00 AM	R37011
Vinyl chloride	ND	0.98	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Xylenes, Total	9.2	1.8	7.5		µg/L	5	9/6/2016 11:30:00 AM	R37011
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	5	9/6/2016 11:30:00 AM	R37011
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	5	9/6/2016 11:30:00 AM	R37011

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 12:20:00 PM

Lab ID: 1609078-005

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Surr: Dibromofluoromethane	106	0	70-130		%Rec	5	9/6/2016 11:30:00 AM	R37011
Surr: Toluene-d8	100	0	70-130		%Rec	5	9/6/2016 11:30:00 AM	R37011

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2016 Annual/Quarterly

Collection Date:

Lab ID: 1609078-006

Matrix: TRIP BLANK

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Toluene	ND	0.12	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Acetone	ND	4.9	10		µg/L	1	9/3/2016 12:41:00 AM	A36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Bromoform	ND	0.10	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
2-Butanone	ND	0.74	10		µg/L	1	9/3/2016 12:41:00 AM	A36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/3/2016 12:41:00 AM	A36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Chloroform	ND	0.089	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/3/2016 12:41:00 AM	A36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2016 Annual/Quarterly

Collection Date:

Lab ID: 1609078-006

Matrix: TRIP BLANK

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
2-Hexanone	ND	0.84	10		µg/L	1	9/3/2016 12:41:00 AM	A36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/3/2016 12:41:00 AM	A36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Styrene	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/3/2016 12:41:00 AM	A36950
Surr: 1,2-Dichloroethane-d4	105	0	70-130		%Rec	1	9/3/2016 12:41:00 AM	A36950
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	9/3/2016 12:41:00 AM	A36950
Surr: Dibromofluoromethane	102	0	70-130		%Rec	1	9/3/2016 12:41:00 AM	A36950
Surr: Toluene-d8	102	0	70-130		%Rec	1	9/3/2016 12:41:00 AM	A36950

Refer to the QC Summary report and 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: Field Blank

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 7:00:00 AM

Lab ID: 1609078-007

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
Benzene	ND	0.096	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Toluene	ND	0.12	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Acetone	ND	4.9	10		µg/L	1	9/3/2016 1:04:00 AM	A36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Bromoform	ND	0.10	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
2-Butanone	ND	0.74	10		µg/L	1	9/3/2016 1:04:00 AM	A36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/3/2016 1:04:00 AM	A36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Chloroform	ND	0.089	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/3/2016 1:04:00 AM	A36950

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609078

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2016 Annual/Quarterly

Collection Date: 9/1/2016 7:00:00 AM

Lab ID: 1609078-007

Matrix: AQUEOUS

Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: BCN	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
2-Hexanone	ND	0.84	10		µg/L	1	9/3/2016 1:04:00 AM	A36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/3/2016 1:04:00 AM	A36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Styrene	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/3/2016 1:04:00 AM	A36950
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	1	9/3/2016 1:04:00 AM	A36950
Surr: 4-Bromofluorobenzene	100	0	70-130		%Rec	1	9/3/2016 1:04:00 AM	A36950
Surr: Dibromofluoromethane	101	0	70-130		%Rec	1	9/3/2016 1:04:00 AM	A36950
Surr: Toluene-d8	101	0	70-130		%Rec	1	9/3/2016 1:04:00 AM	A36950

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

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

Anatek Labs, Inc.

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

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

Batch #: 160908028
Project Name: 1609078

Analytical Results Report

Sample Number	160908028-001	Sampling Date	9/1/2016	Date/Time Received	9/8/2016 12:30 PM
Client Sample ID	1609078-005G / OAPIS-1	Sampling Time	12:20 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.106	mg/L	0.01	9/14/2016	MER	EPA 335.4	

Authorized Signature



Todd Taruscio, Lab Manager

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

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

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

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

Batch #: 160908028
Project Name: 1609078

Analytical Results Report Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.513	mg/L	0.5	102.6	90-110	9/14/2016	9/14/2016

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
160908027-002	Cyanide	ND	0.509	mg/L	0.5	101.8	90-110	9/14/2016	9/14/2016

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	0.494	mg/L	0.5	98.8	3.0	0-20	9/14/2016	9/14/2016

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/L	0.01	9/14/2016	9/14/2016

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

Comments:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	MB-A		SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	PBW		Batch ID:	A37246		RunNo:	37246			
Prep Date:			Analysis Date:	9/16/2016		SeqNo:	1155988	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS-A		SampType:	LCS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	LCSW		Batch ID:	A37246		RunNo:	37246			
Prep Date:			Analysis Date:	9/16/2016		SeqNo:	1155989	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.7	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Calcium	50	1.0	50.00	0	99.1	85	115			
Chromium	0.49	0.0060	0.5000	0	98.5	85	115			
Copper	0.49	0.0060	0.5000	0	97.6	85	115			
Iron	0.49	0.020	0.5000	0	97.3	85	115			
Magnesium	49	1.0	50.00	0	98.8	85	115			
Manganese	0.48	0.0020	0.5000	0	96.9	85	115			
Potassium	48	1.0	50.00	0	96.5	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			
Sodium	49	1.0	50.00	0	97.0	85	115			
Zinc	0.50	0.010	0.5000	0	99.2	85	115			

Sample ID	LLCS-A		SampType:	LCSLL		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	A37246		RunNo:	37246			
Prep Date:			Analysis Date:	9/16/2016		SeqNo:	1155990	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	84.5	50	150			J
Cadmium	0.0019	0.0020	0.002000	0	94.5	50	150			J
Calcium	0.53	1.0	0.5000	0	105	50	150			J
Chromium	0.0058	0.0060	0.006000	0	97.5	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#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID LLLCS-A	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: BatchQC	Batch ID: A37246			RunNo: 37246						
Prep Date:	Analysis Date: 9/16/2016			SeqNo: 1155990		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0043	0.0060	0.006000	0	71.0	50	150			J
Iron	0.022	0.020	0.02000	0	110	50	150			
Magnesium	0.52	1.0	0.5000	0	105	50	150			J
Manganese	0.0021	0.0020	0.002000	0	105	50	150			
Potassium	0.57	1.0	0.5000	0	115	50	150			J
Silver	0.0055	0.0050	0.005000	0	110	50	150			
Sodium	0.48	1.0	0.5000	0	95.9	50	150			J
Zinc	0.0057	0.010	0.005000	0	114	50	150			J

Sample ID MB-B	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: PBW	Batch ID: B37295			RunNo: 37295						
Prep Date:	Analysis Date: 9/19/2016			SeqNo: 1158025		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Sodium	ND	1.0								

Sample ID LCS-B	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: LCSW	Batch ID: B37295			RunNo: 37295						
Prep Date:	Analysis Date: 9/19/2016			SeqNo: 1158026		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.50	0.020	0.5000	0	99.5	85	115			
Sodium	50	1.0	50.00	0	101	85	115			

Sample ID LLLCS-B	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: BatchQC	Batch ID: B37295			RunNo: 37295						
Prep Date:	Analysis Date: 9/19/2016			SeqNo: 1158027		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.025	0.020	0.02000	0	124	50	150			
Sodium	0.55	1.0	0.5000	0	111	50	150			J

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	MB-27573		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	27573		RunNo:	37369			
Prep Date:	9/19/2016		Analysis Date:	9/21/2016		SeqNo:	1161340	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-27573		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	27573		RunNo:	37369			
Prep Date:	9/19/2016		Analysis Date:	9/21/2016		SeqNo:	1161341	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.6	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.9	85	115			
Chromium	0.48	0.0060	0.5000	0	95.8	85	115			
Copper	0.48	0.0060	0.5000	0	95.1	85	115			
Iron	0.48	0.020	0.5000	0	95.3	85	115			
Manganese	0.47	0.0020	0.5000	0	94.6	85	115			
Silver	0.091	0.0050	0.1000	0	91.1	85	115			
Zinc	0.47	0.010	0.5000	0	94.7	85	115			

Sample ID	LLCS-27573		SampType:	LCSLL		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	BatchQC		Batch ID:	27573		RunNo:	37369			
Prep Date:	9/19/2016		Analysis Date:	9/21/2016		SeqNo:	1161342	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0022	0.0020	0.002000	0	110	50	150			
Cadmium	0.0020	0.0020	0.002000	0	99.5	50	150			J
Chromium	0.0064	0.0060	0.006000	0	106	50	150			
Copper	0.0057	0.0060	0.006000	0	94.8	50	150			J
Manganese	0.0021	0.0020	0.002000	0	106	50	150			
Silver	0.0049	0.0050	0.005000	0	98.6	50	150			J
Zinc	0.0059	0.010	0.005000	0	117	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#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	LLLCS-27573	SampType:	LCSLL	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	27573	RunNo:	37369					
Prep Date:	9/19/2016	Analysis Date:	9/21/2016	SeqNo:	1161352	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.022	0.020	0.02000	0	111	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#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: D37166			RunNo: 37166						
Prep Date:	Analysis Date: 9/13/2016			SeqNo: 1152869		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.5	85	115			
Lead	0.012	0.00050	0.01250	0	95.4	85	115			

Sample ID LCSLL	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: D37166			RunNo: 37166						
Prep Date:	Analysis Date: 9/13/2016			SeqNo: 1152872		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	0.00048	0.00050	0.0005000	0	95.9	50	150			J

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: D37166			RunNo: 37166						
Prep Date:	Analysis Date: 9/13/2016			SeqNo: 1152875		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								

Sample ID LCSLL	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: D37239			RunNo: 37239						
Prep Date:	Analysis Date: 9/15/2016			SeqNo: 1155796		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	111	50	150			
Lead	0.00053	0.00050	0.0005000	0	107	50	150			
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: D37239			RunNo: 37239						
Prep Date:	Analysis Date: 9/15/2016			SeqNo: 1155798		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								

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#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	LCS			SampType: LCS		TestCode: EPA 200.8: Dissolved Metals				
Client ID:	LCSW			Batch ID: D37239		RunNo: 37239				
Prep Date:				Analysis Date: 9/15/2016		SeqNo: 1155805		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.012	0.00050	0.01250	0	97.8	85	115			
Selenium	0.024	0.0010	0.02500	0	96.6	85	115			
Uranium	0.012	0.00050	0.01250	0	97.1	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: B37281		RunNo: 37281					
Prep Date:			Analysis Date: 9/16/2016		SeqNo: 1157676		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.0	85	115			
Selenium	0.023	0.0010	0.02500	0	93.7	85	115			

Sample ID	LCSLL			SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals				
Client ID:	BatchQC			Batch ID: B37281		RunNo: 37281				
Prep Date:				Analysis Date: 9/16/2016		SeqNo: 1157677		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00093	0.0010	0.001000	0	93.5	50	150			J
Selenium	0.00096	0.0010	0.001000	0	96.3	50	150			J

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: B37281			RunNo: 37281					
Prep Date:		Analysis Date: 9/16/2016			SeqNo: 1157678		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								

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	MSLCS-27450		SampType: LCS		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	LCSW		Batch ID: 27450		RunNo: 37201					
Prep Date:	9/12/2016		Analysis Date: 9/14/2016		SeqNo: 1154603		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.6	85	115			
Lead	0.012	0.00050	0.01250	0	96.3	85	115			
Selenium	0.023	0.0010	0.02500	0	92.8	85	115			
Uranium	0.012	0.00050	0.01250	0	95.3	85	115			

Sample ID	MSLLCS-27450		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 27450		RunNo: 37201					
Prep Date:	9/12/2016		Analysis Date: 9/14/2016		SeqNo: 1154608		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	121	50	150			
Lead	0.00051	0.00050	0.0005000	0	103	50	150			
Selenium	0.00094	0.0010	0.001000	0	93.9	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	97.4	50	150			J

Sample ID	MB-27450		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 27450		RunNo: 37201					
Prep Date:	9/12/2016		Analysis Date: 9/14/2016		SeqNo: 1154613		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00024	0.0010								J
Lead	ND	0.00050								
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#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R36994		RunNo: 36994							
Prep Date:	Analysis Date: 9/2/2016		SeqNo: 1146375		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R36994		RunNo: 36994							
Prep Date:	Analysis Date: 9/2/2016		SeqNo: 1146376		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.5	0.50	5.000	0	90.7	90	110			
Nitrogen, Nitrite (As N)	0.93	0.10	1.000	0	93.0	90	110			
Bromide	2.3	0.10	2.500	0	92.7	90	110			
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	95.3	90	110			
Sulfate	9.4	0.50	10.00	0	93.7	90	110			

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R37182		RunNo: 37182							
Prep Date:	Analysis Date: 9/14/2016		SeqNo: 1153582		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R37182		RunNo: 37182							
Prep Date:	Analysis Date: 9/14/2016		SeqNo: 1153583		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	103	90	110			
Phosphorus, Orthophosphate (As P)	5.0	0.50	5.000	0	99.8	90	110			

Sample ID MB	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: A37205		RunNo: 37205							
Prep Date:	Analysis Date: 9/14/2016		SeqNo: 1154645		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								

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#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	MB	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	A37205	RunNo:	37205					
Prep Date:		Analysis Date:	9/14/2016	SeqNo:	1154645	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID	LCS	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	A37205	RunNo:	37205					
Prep Date:		Analysis Date:	9/14/2016	SeqNo:	1154646	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Chloride	4.8	0.50	5.000	0	95.3	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	100	90	110			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	LCS-27339		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 27339		RunNo: 37010					
Prep Date:	9/6/2016		Analysis Date: 9/6/2016		SeqNo: 1146966		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	105	62.8	153			
Surr: DNOP	0.62		0.5000		124	77.1	144			

Sample ID	MB-27339		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 27339		RunNo: 37010					
Prep Date:	9/6/2016		Analysis Date: 9/6/2016		SeqNo: 1146967		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	1.2		1.000		122	77.1	144			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: R37021		RunNo: 37021							
Prep Date:	Analysis Date: 9/6/2016		SeqNo: 1147571		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	101	80	120			
Surr: BFB	18		20.00		88.0	66.4	120			

Sample ID 5ML RB	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: R37021		RunNo: 37021							
Prep Date:	Analysis Date: 9/6/2016		SeqNo: 1147572		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	16		20.00		82.2	66.4	120			

Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: R37047		RunNo: 37047							
Prep Date:	Analysis Date: 9/7/2016		SeqNo: 1148171		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.52	0.050	0.5000	0	105	80	120			
Surr: BFB	19		20.00		94.9	66.4	120			

Sample ID 5ML RB	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: R37047		RunNo: 37047							
Prep Date:	Analysis Date: 9/7/2016		SeqNo: 1148172		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		85.6	66.4	120			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID 100ng lcs2	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES					
Client ID: LCSW	Batch ID: A36950				RunNo: 36950					
Prep Date:	Analysis Date: 9/2/2016				SeqNo: 1146453	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.8	70	130			
Toluene	21	1.0	20.00	0	103	70	130			
Chlorobenzene	21	1.0	20.00	0	105	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	95.5	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	93.9	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID rb1	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES					
Client ID: PBW	Batch ID: A36950				RunNo: 36950					
Prep Date:	Analysis Date: 9/2/2016				SeqNo: 1146454	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.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID: rb1	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: A36950			RunNo: 36950						
Prep Date:	Analysis Date: 9/2/2016			SeqNo: 1146454		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.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID rb1	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: A36950			RunNo: 36950						
Prep Date:	Analysis Date: 9/2/2016			SeqNo: 1146454		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		104	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID 100NG LCS	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R37011			RunNo: 37011						
Prep Date:	Analysis Date: 9/6/2016			SeqNo: 1146952		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.1	70	130			
Toluene	21	1.0	20.00	0	103	70	130			
Chlorobenzene	21	1.0	20.00	0	105	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	100	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	96.2	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.9		10.00		98.8	70	130			
Surr: Toluene-d8	10		10.00		99.8	70	130			

Sample ID VSF FRIDGE	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R37011			RunNo: 37011						
Prep Date:	Analysis Date: 9/6/2016			SeqNo: 1146953		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	0.19	4.0								J
Acetone	ND	10								
Bromobenzene	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#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	VSF FRIDGE	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R37011			RunNo: 37011					
Prep Date:		Analysis Date: 9/6/2016			SeqNo: 1146953		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	1.1	10								J
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								

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#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	VSF FRIDGE	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R37011			RunNo: 37011					
Prep Date:		Analysis Date: 9/6/2016			SeqNo: 1146953		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	mb-27341	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	27341	RunNo:	37106					
Prep Date:	9/6/2016	Analysis Date:	9/10/2016	SeqNo:	1150325	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	9.0	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	3.8	10								J
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	4.7	10								J
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	mb-27341	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	27341	RunNo:	37106					
Prep Date:	9/6/2016	Analysis Date:	9/10/2016	SeqNo:	1150325	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	99		200.0		49.5	15	123			
Surr: Phenol-d5	98		200.0		49.2	4.13	124			
Surr: 2,4,6-Tribromophenol	120		200.0		60.0	18.4	134			
Surr: Nitrobenzene-d5	74		100.0		73.8	28.8	134			
Surr: 2-Fluorobiphenyl	71		100.0		71.3	35.9	125			
Surr: 4-Terphenyl-d14	41		100.0		41.5	15	146			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	Ics-27341		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 27341		RunNo: 37106					
Prep Date:	9/6/2016		Analysis Date: 9/10/2016		SeqNo: 1150326		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	73	10	100.0	0	73.1	35	113			
4-Chloro-3-methylphenol	100	10	200.0	0	51.3	40.7	114			
2-Chlorophenol	100	10	200.0	0	51.0	37.6	113			
1,4-Dichlorobenzene	49	10	100.0	0	48.6	37.7	106			
2,4-Dinitrotoluene	80	10	100.0	0	79.5	37	91			
N-Nitrosodi-n-propylamine	88	10	100.0	0	88.2	45.4	105			
4-Nitrophenol	67	10	200.0	0	33.6	33.4	104			
Pentachlorophenol	98	20	200.0	0	49.0	29.5	94.9			
Phenol	76	10	200.0	0	38.1	30.6	119			
Pyrene	84	10	100.0	0	84.0	26.2	120			
1,2,4-Trichlorobenzene	56	10	100.0	0	56.2	39.9	125			
Surr: 2-Fluorophenol	83		200.0		41.5	15	123			
Surr: Phenol-d5	86		200.0		42.8	4.13	124			
Surr: 2,4,6-Tribromophenol	120		200.0		59.1	18.4	134			
Surr: Nitrobenzene-d5	81		100.0		80.8	28.8	134			
Surr: 2-Fluorobiphenyl	73		100.0		73.5	35.9	125			
Surr: 4-Terphenyl-d14	52		100.0		52.3	15	146			

Sample ID	Icsd-27341			SampType:	LCSD		TestCode:	EPA Method 8270C: Semivolatiles			
Client ID:	LCSS02			Batch ID:	27341		RunNo:	37109			
Prep Date:	9/6/2016			Analysis Date:	9/10/2016		SeqNo:	1150577		Units:	µg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Acenaphthene	97	10	100.0	0	97.4	35	113	28.5	46.7		
4-Chloro-3-methylphenol	150	10	200.0	0	74.0	40.7	114	36.2	29.4	R	
2-Chlorophenol	130	10	200.0	0	64.6	37.6	113	23.5	38.7		
1,4-Dichlorobenzene	58	10	100.0	0	58.4	37.7	106	18.2	25.3		
2,4-Dinitrotoluene	100	10	100.0	0	102	37	91	25.1	34.7	S	
N-Nitrosodi-n-propylamine	100	10	100.0	0	101	45.4	105	13.7	30.2		
4-Nitrophenol	110	10	200.0	0	54.0	33.4	104	46.6	42.2	R	
Pentachlorophenol	120	20	200.0	0	59.3	29.5	94.9	18.9	35.5		
Phenol	100	10	200.0	0	52.1	30.6	119	31.1	25.5	R	
Pyrene	93	10	100.0	0	93.0	26.2	120	10.2	27.1		
1,2,4-Trichlorobenzene	71	10	100.0	0	71.1	39.9	125	23.4	43.3		
Surr: 2-Fluorophenol	110		200.0		54.5	15	123	0	0		
Surr: Phenol-d5	110		200.0		55.7	4.13	124	0	0		
Surr: 2,4,6-Tribromophenol	150		200.0		74.5	18.4	134	0	0		
Surr: Nitrobenzene-d5	99		100.0		98.7	28.8	134	0	0		
Surr: 2-Fluorobiphenyl	86		100.0		86.5	35.9	125	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#: 1609078

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	Icsd-27341		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 27341		RunNo: 37109					
Prep Date:	9/6/2016		Analysis Date: 9/10/2016		SeqNo: 1150577		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	60		100.0		60.3	15	146	0	0	

Qualifiers:

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



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

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1609078

RcptNo: 1

Received by/date: AT 09/01/16
Logged By: **Lindsay Mangin** 9/1/2016 4:30:00 PM
Completed By: **Lindsay Mangin** 9/2/2016 9:38:29 AM
Reviewed By: AOJ 09/02/16

[Signature]
[Signature]

Chain of Custody

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

Log In

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

of preserved bottles checked for pH: 15
(2 or 12 unless noted)
Adjusted? Yes
Checked by: AOJ

Special Handling (if applicable)

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

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks: For metals analysis: added 0.4 mL HNO₃ to -002E
1 mL HNO₃ to -005D

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.9	Good	Yes			

for acceptable pH.

9/2@1200

AOJ



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

October 18, 2016

Cheryl Johnson

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

RE: 2016 Annual

OrderNo.: 1609449

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 9/8/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609449

Date Reported: 10/18/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OW-1

Project: 2016 Annual

Collection Date: 9/6/2016 1:00:00 PM

Lab ID: 1609449-001

Matrix: AQUEOUS

Received Date: 9/8/2016 5:10:00 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	9/13/2016 5:08:32 PM	27428
EPA METHOD 8015M/D: DIESEL RANGE								
							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/12/2016 8:08:13 PM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 8:08:13 PM	27430
Surr: DNOP	112	0	77.1-144		%Rec	1	9/12/2016 8:08:13 PM	27430
EPA METHOD 300.0: ANIONS								
							Analyst: LGT	
Fluoride	ND	0.25	0.50		mg/L	5	9/10/2016 3:42:17 AM	R37119
Chloride	83	0.25	2.5		mg/L	5	9/10/2016 3:42:17 AM	R37119
Bromide	0.27	0.22	0.50	J	mg/L	5	9/10/2016 3:42:17 AM	R37119
Phosphorus, Orthophosphate (As P)	1.1	0.38	2.5	JH	mg/L	5	9/10/2016 3:42:17 AM	R37119
Sulfate	180	0.71	2.5		mg/L	5	9/10/2016 3:42:17 AM	R37119
Nitrate+Nitrite as N	0.72	0.46	1.0	J	mg/L	5	9/10/2016 4:31:56 AM	R37119
EPA METHOD 200.7: DISSOLVED METALS								
							Analyst: ELS	
Barium	0.039	0.0013	0.0020		mg/L	1	9/16/2016 2:29:40 PM	B37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 2:29:40 PM	B37246
Calcium	3.1	0.50	1.0		mg/L	1	9/16/2016 2:29:40 PM	B37246
Chromium	0.0023	0.0018	0.0060	J	mg/L	1	9/16/2016 2:29:40 PM	B37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 2:29:40 PM	B37246
Iron	0.31	0.020	0.020	*	mg/L	1	9/16/2016 2:29:40 PM	B37246
Magnesium	ND	0.50	1.0		mg/L	1	9/16/2016 2:29:40 PM	B37246
Manganese	0.026	0.00032	0.0020		mg/L	1	9/16/2016 2:29:40 PM	B37246
Potassium	0.81	0.50	1.0	J	mg/L	1	9/16/2016 2:29:40 PM	B37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 2:29:40 PM	B37246
Sodium	310	2.5	5.0		mg/L	5	9/16/2016 2:31:41 PM	B37246
Zinc	0.096	0.0028	0.010		mg/L	1	9/16/2016 2:29:40 PM	B37246
EPA METHOD 200.7: TOTAL METALS								
							Analyst: MED	
Barium	0.17	0.00079	0.0020		mg/L	1	9/21/2016 2:53:03 PM	27574
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 2:53:03 PM	27574
Chromium	0.043	0.0027	0.0060		mg/L	1	9/21/2016 2:53:03 PM	27574
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 2:53:03 PM	27574
Iron	9.2	0.20	0.20	*	mg/L	10	10/3/2016 1:59:15 PM	27574
Manganese	0.35	0.00027	0.0020	*	mg/L	1	9/21/2016 2:53:03 PM	27574
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 2:53:03 PM	27574
Zinc	0.069	0.0027	0.010		mg/L	1	9/21/2016 2:53:03 PM	27574
EPA 200.8: DISSOLVED METALS								
							Analyst: JLF	
Arsenic	0.0015	0.00069	0.0050	J	mg/L	5	9/21/2016 8:04:48 PM	A37386
Lead	0.0014	0.00017	0.00050		mg/L	1	9/20/2016 2:48:38 PM	B37327

Refer to the QC Summary report and 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.

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Matrix: AQUEOUS

Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Selenium	0.0041	0.00021	0.0010		mg/L	1	9/20/2016 2:48:38 PM	B37327
Uranium	0.040	0.00026	0.0025	*	mg/L	5	9/21/2016 8:04:48 PM	A37386
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0031	0.00021	0.0010		mg/L	1	9/20/2016 6:26:06 PM	27574
Lead	0.015	0.00041	0.0025		mg/L	5	9/21/2016 4:39:56 PM	27574
Selenium	0.0041	0.00094	0.0050	J	mg/L	5	9/21/2016 4:39:56 PM	27574
Uranium	0.045	0.00087	0.0025	*	mg/L	5	9/21/2016 4:39:56 PM	27574
EPA METHOD 245.1: MERCURY							Analyst: MED	
Mercury	0.000087	0.000053	0.00020	J	mg/L	1	9/15/2016 1:21:27 PM	27494
EPA METHOD 8260B: VOLATILES							Analyst: DJF	
Benzene	ND	0.096	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Toluene	ND	0.12	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Methyl tert-butyl ether (MTBE)	0.88	0.21	1.0	J	µg/L	1	9/14/2016 1:52:46 PM	R37199
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Naphthalene	ND	0.093	2.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Acetone	ND	4.9	10		µg/L	1	9/14/2016 1:52:46 PM	R37199
Bromobenzene	ND	0.098	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Bromoform	ND	0.10	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Bromomethane	ND	0.78	3.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
2-Butanone	ND	0.74	10		µg/L	1	9/14/2016 1:52:46 PM	R37199
Carbon disulfide	ND	0.60	10		µg/L	1	9/14/2016 1:52:46 PM	R37199
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Chloroethane	ND	0.19	2.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Chloroform	ND	0.089	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Chloromethane	ND	0.21	3.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/14/2016 1:52:46 PM	R37199

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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