

AP - 111

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

2016

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609418

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID	MB-27428		SampType: MBLK		TestCode: EPA Method 8011/504.1: EDB					
Client ID:	PBW		Batch ID: 27428		RunNo: 37191					
Prep Date:	9/12/2016		Analysis Date: 9/13/2016		SeqNo: 1154056		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-27428		SampType: LCS		TestCode: EPA Method 8011/504.1: EDB					
Client ID:	LCSW		Batch ID: 27428		RunNo: 37191					
Prep Date:	9/12/2016		Analysis Date: 9/13/2016		SeqNo: 1154057		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.11	0.010	0.1000	0	106	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#: 1609418

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID	LCS-27430		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 27430		RunNo: 37116					
Prep Date:	9/12/2016		Analysis Date: 9/12/2016		SeqNo: 1151166		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.0	1.0	5.000	0	121	63.2	155			
Surr: DNOP	0.55		0.5000		111	77.1	144			

Sample ID	MB-27430	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW	Batch ID: 27430			RunNo: 37116					
Prep Date:	9/12/2016	Analysis Date: 9/12/2016			SeqNo: 1151167		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		108	77.1	144			

Sample ID	1609418-001BMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	FB090716		Batch ID: 27430		RunNo: 37116					
Prep Date:	9/12/2016		Analysis Date: 9/12/2016		SeqNo: 1151375		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.3	1.0	5.000	0	126	79.6	148			
Surr: DNOP	0.56		0.5000		113	77.1	144			

Sample ID	1609418-001BMSD			SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range				
Client ID:	FB090716			Batch ID:	27430		RunNo:	37116				
Prep Date:	9/12/2016			Analysis Date:	9/12/2016		SeqNo:	1151376			Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range Organics (DRO)	6.2	1.0	5.000	0	124	79.6	148	1.42	20			
Surr: DNOP	0.57		0.5000		113	77.1	144	0	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#: 1609418

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R37129			RunNo: 37129					
Prep Date:	Analysis Date: 9/12/2016			SeqNo: 1151411		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.7	70	130			
Toluene	18	1.0	20.00	0	91.9	70	130			
Chlorobenzene	18	1.0	20.00	0	89.9	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	96.2	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	87.9	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.4	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.2	70	130			
Surr: Toluene-d8	9.7		10.00		96.9	70	130			

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R37129			RunNo: 37129					
Prep Date:		Analysis Date: 9/12/2016			SeqNo: 1151412		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	0.12	0.10								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	0.35	0.10								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	0.28	0.10								
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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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	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#: 1609418

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R37129			RunNo: 37129					
Prep Date:		Analysis Date: 9/12/2016			SeqNo: 1151412	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	0.37	0.10								
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								

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17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID rb	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R37129		RunNo: 37129							
Prep Date:	Analysis Date: 9/12/2016		SeqNo: 1151412		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		101	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.1	70	130			
Surr: Dibromofluoromethane	10		10.00		99.9	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: R37165		RunNo: 37165							
Prep Date:	Analysis Date: 9/13/2016		SeqNo: 1152880		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.1	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		99.9	70	130			
Surr: Toluene-d8	9.6		10.00		95.5	70	130			

Sample ID rb	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R37165		RunNo: 37165							
Prep Date:	Analysis Date: 9/13/2016		SeqNo: 1152881		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.7	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.8		10.00		97.6	70	130			

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QC SUMMARY REPORT

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WO#: 1609418

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID	mb-27434		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 27434		RunNo: 37197					
Prep Date:	9/12/2016		Analysis Date: 9/14/2016		SeqNo: 1154153		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								
Benzo(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	7.5	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	3.5	10								J
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	3.9	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	8.5	10								J
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

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WO#: 1609418

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID	mb-27434		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 27434		RunNo: 37197					
Prep Date:	9/12/2016		Analysis Date: 9/14/2016		SeqNo: 1154153		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	47		200.0		23.4	15	123			
Surr: Phenol-d5	43		200.0		21.4	4.13	124			
Surr: 2,4,6-Tribromophenol	80		200.0		40.0	18.4	134			
Surr: Nitrobenzene-d5	52		100.0		51.7	28.8	134			
Surr: 2-Fluorobiphenyl	44		100.0		43.5	35.9	125			
Surr: 4-Terphenyl-d14	32		100.0		32.4	15	146			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

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WO#: 1609418

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID	lcsd-27434		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 27434		RunNo: 37197					
Prep Date:	9/12/2016		Analysis Date: 9/14/2016		SeqNo: 1154155		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	66	10	100.0	0	66.5	35	113	28.0	0	
4-Chloro-3-methylphenol	110	10	200.0	0	54.2	40.7	114	27.1	0	
2-Chlorophenol	91	10	200.0	0	45.3	37.6	113	43.6	0	
1,4-Dichlorobenzene	42	10	100.0	0	41.6	37.7	106	36.7	0	
2,4-Dinitrotoluene	67	10	100.0	0	66.8	37	91	33.1	0	
N-Nitrosodi-n-propylamine	67	10	100.0	0	67.4	45.4	105	27.9	0	
4-Nitrophenol	90	10	200.0	0	45.2	33.4	104	6.84	0	
Pentachlorophenol	100	20	200.0	0	50.7	29.5	94.9	10.7	0	
Phenol	86	10	200.0	0	43.1	30.6	119	32.2	0	
Pyrene	70	10	100.0	0	70.3	26.2	120	28.0	0	
1,2,4-Trichlorobenzene	45	10	100.0	0	44.8	39.9	125	44.4	0	
Surr: 2-Fluorophenol	95		200.0		47.6	15	123	0	0	
Surr: Phenol-d5	110		200.0		53.5	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	130		200.0		66.9	18.4	134	0	0	
Surr: Nitrobenzene-d5	61		100.0		61.1	28.8	134	0	0	
Surr: 2-Fluorobiphenyl	69		100.0		69.0	35.9	125	0	0	
Surr: 4-Terphenyl-d14	61		100.0		60.5	15	146	0	0	

Sample ID	mb-27514		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 27514		RunNo: 37269					
Prep Date:	9/15/2016		Analysis Date: 9/16/2016		SeqNo: 1157088		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	130		200.0		64.9	15	123			
Surr: Phenol-d5	100		200.0		52.4	4.13	124			
Surr: 2,4,6-Tribromophenol	220		200.0		108	18.4	134			
Surr: Nitrobenzene-d5	85		100.0		84.6	28.8	134			
Surr: 2-Fluorobiphenyl	88		100.0		88.2	35.9	125			
Surr: 4-Terphenyl-d14	58		100.0		58.3	15	146			

Sample ID	lcs-27434			SampType:	LCS		TestCode:	EPA Method 8270C: Semivolatiles			
Client ID:	LCSW			Batch ID:	27434		RunNo:	37269			
Prep Date:	9/12/2016			Analysis Date:	9/16/2016		SeqNo:	1157089		Units:	µg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Acenaphthene	88	10	100.0	0	88.1	35	113				
4-Chloro-3-methylphenol	140	10	200.0	0	71.2	40.7	114				
2-Chlorophenol	140	10	200.0	0	70.6	37.6	113				
1,4-Dichlorobenzene	60	10	100.0	0	60.2	37.7	106				
2,4-Dinitrotoluene	93	10	100.0	0	93.2	37	91			S	

Qualifiers:

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

QC SUMMARY REPORT

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WO#: 1609418

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID	Ics-27434		SampType: LCS			TestCode: EPA Method 8270C: Semivolatiles				
Client ID:	LCSW		Batch ID: 27434			RunNo: 37269				
Prep Date:	9/12/2016		Analysis Date: 9/16/2016			SeqNo: 1157089		Units: µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Nitrosodi-n-propylamine	89	10	100.0	0	89.3	45.4	105			
4-Nitrophenol	84	10	200.0	0	42.2	33.4	104			
Pentachlorophenol	110	20	200.0	0	56.5	29.5	94.9			
Phenol	120	10	200.0	0	59.7	30.6	119			
Pyrene	93	10	100.0	0	93.3	26.2	120			
1,2,4-Trichlorobenzene	70	10	100.0	0	70.4	39.9	125			
Surr: 2-Fluorophenol	78		200.0		39.0	15	123			
Surr: Phenol-d5	82		200.0		41.1	4.13	124			
Surr: 2,4,6-Tribromophenol	120		200.0		58.5	18.4	134			
Surr: Nitrobenzene-d5	66		100.0		66.3	28.8	134			
Surr: 2-Fluorobiphenyl	65		100.0		64.7	35.9	125			
Surr: 4-Terphenyl-d14	52		100.0		51.6	15	146			

Sample ID	Ics-27514		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 27514		RunNo: 37269					
Prep Date:	9/15/2016		Analysis Date: 9/16/2016		SeqNo: 1157091		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	130		200.0		66.0	15	123			
Surr: Phenol-d5	140		200.0		69.3	4.13	124			
Surr: 2,4,6-Tribromophenol	180		200.0		89.4	18.4	134			
Surr: Nitrobenzene-d5	79		100.0		79.4	28.8	134			
Surr: 2-Fluorobiphenyl	77		100.0		76.8	35.9	125			
Surr: 4-Terphenyl-d14	56		100.0		55.7	15	146			

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#: 1609418

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	G37129	RunNo:	37129					
Prep Date:		Analysis Date:	9/12/2016	SeqNo:	1151489	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	75.4	118			
Surr: BFB	10		10.00		103	70	130			

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	G37129	RunNo:	37129					
Prep Date:		Analysis Date:	9/12/2016	SeqNo:	1151490	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.10								
Surr: BFB	9.5		10.00		94.9	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



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: **1609418**

RcptNo: **1**

Received by/date:

Logged By: **Ashley Gallegos**

09/08/16
9/8/2016 5:10:00 PM

Completed By: **Ashley Gallegos**

9/8/2016 5:58:16 PM

Reviewed By:

Jc 09/09/16

Chain of Custody

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

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐
of preserved bottles checked for pH: **21**
(2 or >12 unless noted)
Adjusted? **No**
Checked by: **aj**

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

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



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

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 (MKTF)

OrderNo.: 1609507

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 9 sample(s) on 9/10/2016 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 8:35:00 AM

Lab ID: 1609507-001

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

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	9/12/2016 10:27:27 PM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 10:27:27 PM	27435
Surr: DNOP	145	0	77.1-144	S	%Rec	1	9/12/2016 10:27:27 PM	27435
EPA METHOD 300.0: ANIONS							Analyst: LGT	
Fluoride	0.36	0.25	0.50	J	mg/L	5	9/12/2016 9:40:52 PM	R37147
Chloride	310	1.0	10		mg/L	20	9/12/2016 9:53:17 PM	R37147
Bromide	0.51	0.22	0.50		mg/L	5	9/12/2016 9:40:52 PM	R37147
Phosphorus, Orthophosphate (As P')	1.7	0.38	2.5	JH	mg/L	5	9/12/2016 9:40:52 PM	R37147
Sulfate	97	0.71	2.5		mg/L	5	9/12/2016 9:40:52 PM	R37147
Nitrate+Nitrite as N	1.8	0.46	1.0		mg/L	5	9/17/2016 10:52:19 PM	A37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.058	0.0013	0.0020		mg/L	1	9/29/2016 2:43:37 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 2:43:37 PM	E37552
Calcium	11	0.50	1.0		mg/L	1	9/29/2016 2:43:37 PM	E37552
Chromium	0.0077	0.0018	0.0060		mg/L	1	9/29/2016 2:43:37 PM	E37552
Copper	0.0041	0.0040	0.0060	J	mg/L	1	9/29/2016 2:43:37 PM	E37552
Iron	0.97	0.020	0.020	*	mg/L	1	9/29/2016 2:43:37 PM	E37552
Magnesium	0.68	0.50	1.0	J	mg/L	1	9/29/2016 2:43:37 PM	E37552
Manganese	0.042	0.00032	0.0020		mg/L	1	9/29/2016 2:43:37 PM	E37552
Potassium	1.5	0.50	1.0		mg/L	1	9/29/2016 2:43:37 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 2:43:37 PM	E37552
Sodium	530	5.0	10		mg/L	10	9/29/2016 2:45:36 PM	E37552
Zinc	0.0078	0.0028	0.010	J	mg/L	1	9/29/2016 2:43:37 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.26	0.00079	0.0020		mg/L	1	10/3/2016 6:34:30 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 6:34:30 PM	27613
Chromium	0.031	0.0027	0.0060		mg/L	1	10/3/2016 6:34:30 PM	27613
Copper	0.019	0.0030	0.0060		mg/L	1	10/3/2016 6:34:30 PM	27613
Iron	33	1.0	1.0	*	mg/L	50	10/4/2016 3:50:05 PM	27613
Manganese	0.53	0.00027	0.0020	*	mg/L	1	10/3/2016 6:34:30 PM	27613
Silver	ND	0.0077	0.025		mg/L	5	10/5/2016 1:18:27 PM	27613
Zinc	0.089	0.0027	0.010		mg/L	1	10/3/2016 6:34:30 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0088	0.00014	0.0010		mg/L	1	9/21/2016 10:25:34 PM	B37386
Lead	0.0050	0.00017	0.00050		mg/L	1	9/21/2016 10:25:34 PM	B37386
Selenium	0.015	0.00021	0.0010		mg/L	1	9/21/2016 10:25:34 PM	B37386
Uranium	0.17	0.00051	0.0050	*	mg/L	10	9/22/2016 9:00:52 PM	B37425

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 8:35:00 AM

Lab ID: 1609507-001

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0086	0.00021	0.0010		mg/L	1	9/21/2016 6:04:19 PM	27613
Lead	0.031	0.00041	0.0025	*	mg/L	5	9/22/2016 3:10:44 PM	27613
Selenium	0.014	0.00094	0.0050		mg/L	5	9/22/2016 3:10:44 PM	27613
Uranium	0.17	0.0035	0.010	*	mg/L	20	9/22/2016 3:13:45 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.00010	0.000053	0.00020	J	mg/L	1	9/23/2016 11:00:34 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Acenaphthene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Benzoic acid	6.5	2.6	20	J	µg/L	1	9/16/2016 7:34:03 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Bis(2-ethylhexyl)phthalate	3.5	2.6	10	J	µg/L	1	9/16/2016 7:34:03 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/16/2016 7:34:03 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Di-n-octyl phthalate	ND	2.0	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Dibenzofuran	ND	2.5	10		µg/L	1	9/16/2016 7:34:03 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489

Refer to the QC Summary report and 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: MKTF-44

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 8:35:00 AM

Lab ID: 1609507-001

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
3,3'-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/16/2016 7:34:03 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/16/2016 7:34:03 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/16/2016 7:34:03 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/16/2016 7:34:03 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/16/2016 7:34:03 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/16/2016 7:34:03 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/16/2016 7:34:03 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/16/2016 7:34:03 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/16/2016 7:34:03 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/16/2016 7:34:03 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Phenol	ND	2.0	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Pyridine	ND	2.2	10		µg/L	1	9/16/2016 7:34:03 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/16/2016 7:34:03 PM	27489

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 8:35:00 AM

Lab ID: 1609507-001

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Surr: 2-Fluorophenol	22.4	0	15-123		%Rec	1	9/16/2016 7:34:03 PM	27489
Surr: Phenol-d5	25.1	0	15-124		%Rec	1	9/16/2016 7:34:03 PM	27489
Surr: 2,4,6-Tribromophenol	40.9	0	18.4-134		%Rec	1	9/16/2016 7:34:03 PM	27489
Surr: Nitrobenzene-d5	64.1	0	28.8-134		%Rec	1	9/16/2016 7:34:03 PM	27489
Surr: 2-Fluorobiphenyl	54.6	0	35.9-125		%Rec	1	9/16/2016 7:34:03 PM	27489
Surr: 4-Terphenyl-d14	24.6	0	15-146		%Rec	1	9/16/2016 7:34:03 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Benzene	ND	0.096	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Acetone	ND	4.9	10		µg/L	1	9/13/2016 11:49:48 AM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 11:49:48 AM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 11:49:48 AM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 8:35:00 AM

Lab ID: 1609507-001

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 11:49:48 AM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 11:49:48 AM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 11:49:48 AM	R37165
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	9/13/2016 11:49:48 AM	R37165
Surr: 4-Bromofluorobenzene	104	0	70-130		%Rec	1	9/13/2016 11:49:48 AM	R37165
Surr: Dibromofluoromethane	102	0	70-130		%Rec	1	9/13/2016 11:49:48 AM	R37165
Surr: Toluene-d8	96.8	0	70-130		%Rec	1	9/13/2016 11:49:48 AM	R37165

EPA METHOD 8015D: GASOLINE RANGE

Analyst: **AG**

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-44

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 8:35:00 AM

Lab ID: 1609507-001

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG	
Gasoline Range Organics (GRO)	0.023	0.015	0.050	J	mg/L	1	9/13/2016 11:49:48 AM	G37165
Surr: BFB	100	0	70-130		%Rec	1	9/13/2016 11:49:48 AM	G37165

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2016 3RD QTR (MKTF)

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

Lab ID: 1609507-002

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

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	9/21/2016 7:17:42 PM	27623
EPA METHOD 8015M/D: DIESEL RANGE								
							Analyst: TOM	
Diesel Range Organics (DRO)	0.94	0.69	1.0	J	mg/L	1	9/13/2016 7:46:38 PM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 7:46:38 PM	27435
Surr: DNOP	126	0	77.1-144		%Rec	1	9/13/2016 7:46:38 PM	27435
EPA METHOD 300.0: ANIONS								
							Analyst: LGT	
Fluoride	0.073	0.050	0.10	J	mg/L	1	9/12/2016 10:05:41 PM	R37147
Chloride	560	2.5	25		mg/L	50	9/29/2016 4:57:44 PM	R37589
Bromide	0.89	0.044	0.10		mg/L	1	9/12/2016 10:05:41 PM	R37147
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/12/2016 10:05:41 PM	R37147
Sulfate	34	0.14	0.50		mg/L	1	9/12/2016 10:05:41 PM	R37147
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 11:04:43 PM	A37294
EPA METHOD 200.7: DISSOLVED METALS								
							Analyst: ELS	
Barium	0.31	0.0013	0.0020		mg/L	1	9/29/2016 2:47:22 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 2:47:22 PM	E37552
Calcium	100	5.0	10		mg/L	10	9/29/2016 2:49:24 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 2:47:22 PM	E37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 2:47:22 PM	E37552
Iron	0.11	0.020	0.020		mg/L	1	9/29/2016 2:47:22 PM	E37552
Magnesium	20	0.50	1.0		mg/L	1	9/29/2016 2:47:22 PM	E37552
Manganese	2.7	0.0032	0.020	*	mg/L	10	9/29/2016 2:49:24 PM	E37552
Potassium	1.2	0.50	1.0		mg/L	1	9/29/2016 2:47:22 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 2:47:22 PM	E37552
Sodium	570	5.0	10		mg/L	10	9/29/2016 2:49:24 PM	E37552
Zinc	0.0089	0.0028	0.010	J	mg/L	1	9/29/2016 2:47:22 PM	E37552
EPA METHOD 200.7: TOTAL METALS								
							Analyst: ELS	
Barium	0.45	0.00079	0.0020		mg/L	1	10/3/2016 6:53:43 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 6:53:43 PM	27613
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 6:53:43 PM	27613
Copper	0.0060	0.0030	0.0060	J	mg/L	1	10/3/2016 6:53:43 PM	27613
Iron	4.3	0.10	0.10	*	mg/L	5	10/5/2016 1:31:33 PM	27613
Manganese	3.4	0.0014	0.010	*	mg/L	5	10/3/2016 6:59:15 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/13/2016 1:15:04 PM	28020
Zinc	0.012	0.0027	0.010		mg/L	1	10/3/2016 6:53:43 PM	27613
EPA 200.8: DISSOLVED METALS								
							Analyst: JLF	
Arsenic	0.0058	0.00014	0.0010		mg/L	1	9/21/2016 10:28:37 PM	B37386
Lead	0.0066	0.00017	0.00050		mg/L	1	9/21/2016 10:28:37 PM	B37386

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2016 3RD QTR (MKTF)

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

Lab ID: 1609507-002

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Selenium	0.0074	0.00021	0.0010		mg/L	1	9/21/2016 10:28:37 PM	B37386
Uranium	0.032	0.00026	0.0025	*	mg/L	5	9/23/2016 11:23:41 AM	A37462
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0044	0.00021	0.0010		mg/L	1	9/21/2016 6:13:24 PM	27613
Lead	0.0063	0.000081	0.00050		mg/L	1	9/21/2016 6:13:24 PM	27613
Selenium	0.0059	0.0019	0.010	J	mg/L	10	9/22/2016 3:19:46 PM	27613
Uranium	0.027	0.00087	0.0025		mg/L	5	9/22/2016 3:16:45 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	0.000054	0.000053	0.00020	J	mg/L	1	9/23/2016 11:06:39 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Acenaphthene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Benzoic acid	9.9	2.6	20	J	µg/L	1	9/16/2016 8:01:34 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Bis(2-ethylhexyl)phthalate	3.8	2.6	10	J	µg/L	1	9/16/2016 8:01:34 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/16/2016 8:01:34 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Di-n-octyl phthalate	3.8	2.0	10	J	µg/L	1	9/16/2016 8:01:34 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2016 3RD QTR (MKTF)

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

Lab ID: 1609507-002

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Dibenzofuran	ND	2.5	10		µg/L	1	9/16/2016 8:01:34 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
3,3'-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Dimethyl phthalate	3.1	2.4	10	J	µg/L	1	9/16/2016 8:01:34 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/16/2016 8:01:34 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/16/2016 8:01:34 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/16/2016 8:01:34 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/16/2016 8:01:34 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
1-Methylnaphthalene	4.1	2.9	10	J	µg/L	1	9/16/2016 8:01:34 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/16/2016 8:01:34 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/16/2016 8:01:34 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/16/2016 8:01:34 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/16/2016 8:01:34 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/16/2016 8:01:34 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Phenol	12	2.0	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/16/2016 8:01:34 PM	27489

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2016 3RD QTR (MKTF)

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

Lab ID: 1609507-002

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Pyridine	ND	2.2	10		µg/L	1	9/16/2016 8:01:34 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Surr: 2-Fluorophenol	22.1	0	15-123		%Rec	1	9/16/2016 8:01:34 PM	27489
Surr: Phenol-d5	19.5	0	15-124		%Rec	1	9/16/2016 8:01:34 PM	27489
Surr: 2,4,6-Tribromophenol	43.3	0	18.4-134		%Rec	1	9/16/2016 8:01:34 PM	27489
Surr: Nitrobenzene-d5	59.3	0	28.8-134		%Rec	1	9/16/2016 8:01:34 PM	27489
Surr: 2-Fluorobiphenyl	53.7	0	35.9-125		%Rec	1	9/16/2016 8:01:34 PM	27489
Surr: 4-Terphenyl-d14	26.7	0	15-146		%Rec	1	9/16/2016 8:01:34 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Benzene	920	0.96	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Toluene	5.0	1.2	10	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
Ethylbenzene	18	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Methyl tert-butyl ether (MTBE)	150	2.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2,4-Trimethylbenzene	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,3,5-Trimethylbenzene	ND	1.2	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2-Dichloroethane (EDC)	7.9	1.2	10	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Naphthalene	ND	0.93	20		µg/L	10	9/13/2016 2:42:49 PM	R37165
1-Methylnaphthalene	ND	2.0	40		µg/L	10	9/13/2016 2:42:49 PM	R37165
2-Methylnaphthalene	ND	1.6	40		µg/L	10	9/13/2016 2:42:49 PM	R37165
Acetone	ND	49	100		µg/L	10	9/13/2016 2:42:49 PM	R37165
Bromobenzene	ND	0.98	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Bromodichloromethane	ND	1.4	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Bromoform	ND	1.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Bromomethane	ND	7.8	30		µg/L	10	9/13/2016 2:42:49 PM	R37165
2-Butanone	ND	7.4	100		µg/L	10	9/13/2016 2:42:49 PM	R37165
Carbon disulfide	ND	6.0	100		µg/L	10	9/13/2016 2:42:49 PM	R37165
Carbon Tetrachloride	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Chlorobenzene	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Chloroethane	ND	1.9	20		µg/L	10	9/13/2016 2:42:49 PM	R37165
Chloroform	ND	0.89	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Chloromethane	ND	2.1	30		µg/L	10	9/13/2016 2:42:49 PM	R37165
2-Chlorotoluene	ND	4.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
4-Chlorotoluene	ND	1.3	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
cis-1,2-DCE	40	1.2	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	9/13/2016 2:42:49 PM	R37165

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2016 3RD QTR (MKTF)

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

Lab ID: 1609507-002

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Dibromochloromethane	ND	0.87	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Dibromomethane	ND	1.2	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1-Dichloroethane	180	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1-Dichloroethene	55	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2-Dichloropropane	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,3-Dichloropropane	ND	1.6	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
2,2-Dichloropropane	ND	1.7	20		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1-Dichloropropene	ND	1.3	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Hexachlorobutadiene	ND	2.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
2-Hexanone	ND	8.4	100		µg/L	10	9/13/2016 2:42:49 PM	R37165
Isopropylbenzene	25	1.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
4-Isopropyltoluene	ND	1.4	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	9/13/2016 2:42:49 PM	R37165
Methylene Chloride	ND	1.9	30		µg/L	10	9/13/2016 2:42:49 PM	R37165
n-Butylbenzene	9.0	1.6	30	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
n-Propylbenzene	32	1.3	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
sec-Butylbenzene	5.9	1.2	10	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
Styrene	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
tert-Butylbenzene	ND	1.2	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	9/13/2016 2:42:49 PM	R37165
Tetrachloroethene (PCE)	2.1	1.5	10	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
trans-1,2-DCE	ND	4.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1,1-Trichloroethane	5.9	0.91	10	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Trichloroethene (TCE)	11	1.8	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Trichlorofluoromethane	ND	2.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	9/13/2016 2:42:49 PM	R37165
Vinyl chloride	5.9	2.0	10	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
Xylenes, Total	ND	3.7	15		µg/L	10	9/13/2016 2:42:49 PM	R37165
Surr: 1,2-Dichloroethane-d4	95.8	0	70-130		%Rec	10	9/13/2016 2:42:49 PM	R37165
Surr: 4-Bromofluorobenzene	95.1	0	70-130		%Rec	10	9/13/2016 2:42:49 PM	R37165

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2016 3RD QTR (MKTF)

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

Lab ID: 1609507-002

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Surr: Dibromofluoromethane	94.6	0	70-130		%Rec	10	9/13/2016 2:42:49 PM	R37165
Surr: Toluene-d8	96.2	0	70-130		%Rec	10	9/13/2016 2:42:49 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG	
Gasoline Range Organics (GRO)	7.1	0.15	0.50		mg/L	10	9/13/2016 2:42:49 PM	G37165
Surr: BFB	99.7	0	70-130		%Rec	10	9/13/2016 2:42:49 PM	G37165

Refer to the QC Summary report and 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: MKTF-43

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 10:45:00 AM

Lab ID: 1609507-003

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

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	9/12/2016 11:11:24 PM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 11:11:24 PM	27435
Surr: DNOP	149	0	77.1-144	S	%Rec	1	9/12/2016 11:11:24 PM	27435
EPA METHOD 300.0: ANIONS							Analyst: LGT	
Fluoride	ND	1.0	2.0		mg/L	20	9/12/2016 11:32:33 PM	R37147
Chloride	16000	100	1000		mg/L	2000	9/24/2016 2:10:09 AM	A37469
Bromide	13	0.87	2.0		mg/L	20	9/12/2016 11:32:33 PM	R37147
Phosphorus, Orthophosphate (As P')	6.6	1.5	10	J	mg/L	20	9/12/2016 11:32:33 PM	R37147
Sulfate	1800	7.1	25		mg/L	50	9/24/2016 1:32:53 AM	A37469
Nitrate+Nitrite as N	ND	4.6	10		mg/L	50	9/28/2016 3:45:25 PM	R37561
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.086	0.0013	0.0020		mg/L	1	9/29/2016 2:51:14 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 2:51:14 PM	E37552
Calcium	2900	50	100		mg/L	100	9/29/2016 2:57:17 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 2:51:14 PM	E37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 2:51:14 PM	E37552
Iron	0.073	0.020	0.020		mg/L	1	9/29/2016 2:51:14 PM	E37552
Magnesium	460	2.5	5.0		mg/L	5	9/29/2016 2:53:25 PM	E37552
Manganese	23	0.032	0.20	*	mg/L	100	9/29/2016 2:57:17 PM	E37552
Potassium	9.5	0.50	1.0		mg/L	1	9/29/2016 2:51:14 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 2:51:14 PM	E37552
Sodium	6500	50	100		mg/L	100	9/29/2016 2:57:17 PM	E37552
Zinc	0.013	0.0028	0.010		mg/L	1	9/29/2016 2:51:14 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.17	0.0040	0.010		mg/L	5	10/3/2016 7:07:19 PM	27613
Cadmium	ND	0.0074	0.010		mg/L	5	10/3/2016 7:07:19 PM	27613
Chromium	ND	0.013	0.030		mg/L	5	10/3/2016 7:07:19 PM	27613
Copper	ND	0.015	0.030		mg/L	5	10/3/2016 7:07:19 PM	27613
Iron	3.6	0.10	0.10	*	mg/L	5	10/3/2016 7:07:19 PM	27613
Manganese	21	0.014	0.10	*	mg/L	50	10/5/2016 1:44:36 PM	27613
Silver	ND	0.0077	0.025		mg/L	5	10/3/2016 7:07:19 PM	27613
Zinc	0.032	0.013	0.050	J	mg/L	5	10/3/2016 7:07:19 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.018	0.0069	0.050	J*	mg/L	50	9/22/2016 9:31:46 PM	B37425
Lead	ND	0.0017	0.0050		mg/L	10	9/22/2016 9:26:38 PM	B37425
Selenium	0.067	0.011	0.050	*	mg/L	50	9/22/2016 9:31:46 PM	B37425
Uranium	0.25	0.0010	0.010	*	mg/L	20	9/23/2016 11:26:44 AM	A37462

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 10:45:00 AM

Lab ID: 1609507-003

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.022	0.011	0.050	J*	mg/L	50	9/22/2016 3:34:53 PM	27613
Lead	0.0041	0.00041	0.0025		mg/L	5	9/22/2016 3:28:52 PM	27613
Selenium	0.065	0.019	0.10	J*	mg/L	100	9/22/2016 3:46:56 PM	27613
Uranium	0.21	0.0087	0.025	*	mg/L	50	9/22/2016 3:34:53 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:08:42 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Benzoic acid	17	2.6	20	J	µg/L	1	9/17/2016 11:24:17 AM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Bis(2-ethylhexyl)phthalate	4.1	2.6	10	J	µg/L	1	9/17/2016 11:24:17 AM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 11:24:17 AM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Di-n-octyl phthalate	3.4	2.0	10	J	µg/L	1	9/17/2016 11:24:17 AM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 11:24:17 AM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489

Refer to the QC Summary report and 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: MKTF-43

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 10:45:00 AM

Lab ID: 1609507-003

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
3,3'-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/17/2016 11:24:17 AM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 11:24:17 AM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 11:24:17 AM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 11:24:17 AM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 11:24:17 AM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 11:24:17 AM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 11:24:17 AM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 11:24:17 AM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 11:24:17 AM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 11:24:17 AM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 11:24:17 AM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 11:24:17 AM	27489

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 10:45:00 AM

Lab ID: 1609507-003

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Surr: 2-Fluorophenol	19.7	0	15-123		%Rec	1	9/17/2016 11:24:17 AM	27489
Surr: Phenol-d5	12.4	0	15-124	S	%Rec	1	9/17/2016 11:24:17 AM	27489
Surr: 2,4,6-Tribromophenol	57.9	0	18.4-134		%Rec	1	9/17/2016 11:24:17 AM	27489
Surr: Nitrobenzene-d5	63.8	0	28.8-134		%Rec	1	9/17/2016 11:24:17 AM	27489
Surr: 2-Fluorobiphenyl	49.6	0	35.9-125		%Rec	1	9/17/2016 11:24:17 AM	27489
Surr: 4-Terphenyl-d14	64.7	0	15-146		%Rec	1	9/17/2016 11:24:17 AM	27489
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Benzene	0.14	0.096	1.0	J	µg/L	1	9/13/2016 3:11:36 PM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Acetone	ND	4.9	10		µg/L	1	9/13/2016 3:11:36 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 3:11:36 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 3:11:36 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 10:45:00 AM

Lab ID: 1609507-003

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 3:11:36 PM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 3:11:36 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 3:11:36 PM	R37165
Surr: 1,2-Dichloroethane-d4	106	0	70-130		%Rec	1	9/13/2016 3:11:36 PM	R37165
Surr: 4-Bromofluorobenzene	105	0	70-130		%Rec	1	9/13/2016 3:11:36 PM	R37165
Surr: Dibromofluoromethane	105	0	70-130		%Rec	1	9/13/2016 3:11:36 PM	R37165
Surr: Toluene-d8	95.8	0	70-130		%Rec	1	9/13/2016 3:11:36 PM	R37165

EPA METHOD 8015D: GASOLINE RANGE

Analyst: **AG**

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-43

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 10:45:00 AM

Lab ID: 1609507-003

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG	
Gasoline Range Organics (GRO)	0.026	0.015	0.050	J	mg/L	1	9/13/2016 3:11:36 PM	G37165
Surr: BFB	97.7	0	70-130		%Rec	1	9/13/2016 3:11:36 PM	G37165

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-42

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 12:15:00 PM

Lab ID: 1609507-004

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: TOM	
Diesel Range Organics (DRO)	62	6.9	10		mg/L	10	9/12/2016 11:33:09 PM	27435
Motor Oil Range Organics (MRO)	ND	50	50		mg/L	10	9/12/2016 11:33:09 PM	27435
Surr: DNOP	0	0	77.1-144	S	%Rec	10	9/12/2016 11:33:09 PM	27435
EPA METHOD 300.0: ANIONS							Analyst: LGT	
Fluoride	0.43	0.25	0.50	J	mg/L	5	9/12/2016 11:44:57 PM	R37147
Chloride	880	5.1	50		mg/L	100	9/24/2016 2:22:33 AM	A37469
Bromide	1.7	0.22	0.50		mg/L	5	9/12/2016 11:44:57 PM	R37147
Phosphorus, Orthophosphate (As P')	ND	0.38	2.5	H	mg/L	5	9/12/2016 11:44:57 PM	R37147
Sulfate	110	0.71	2.5		mg/L	5	9/12/2016 11:44:57 PM	R37147
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 11:29:32 PM	A37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.078	0.0013	0.0020		mg/L	1	9/29/2016 2:59:11 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 2:59:11 PM	E37552
Calcium	20	0.50	1.0		mg/L	1	9/29/2016 2:59:11 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 2:59:11 PM	E37552
Copper	0.0052	0.0040	0.0060	J	mg/L	1	9/29/2016 2:59:11 PM	E37552
Iron	0.081	0.020	0.020		mg/L	1	9/29/2016 2:59:11 PM	E37552
Magnesium	2.6	0.50	1.0		mg/L	1	9/29/2016 2:59:11 PM	E37552
Manganese	0.29	0.00032	0.0020	*	mg/L	1	9/29/2016 2:59:11 PM	E37552
Potassium	1.5	0.50	1.0		mg/L	1	9/29/2016 2:59:11 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 2:59:11 PM	E37552
Sodium	690	5.0	10		mg/L	10	9/29/2016 3:01:12 PM	E37552
Zinc	0.0078	0.0028	0.010	J	mg/L	1	9/29/2016 2:59:11 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.11	0.00079	0.0020		mg/L	1	10/3/2016 7:09:21 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 7:09:21 PM	27613
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 7:09:21 PM	27613
Copper	0.0054	0.0030	0.0060	J	mg/L	1	10/3/2016 7:09:21 PM	27613
Iron	0.80	0.020	0.020	*	mg/L	1	10/3/2016 7:09:21 PM	27613
Manganese	0.32	0.00027	0.0020	*	mg/L	1	10/3/2016 7:09:21 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 7:09:21 PM	27613
Zinc	0.0074	0.0027	0.010	J	mg/L	1	10/3/2016 7:09:21 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0033	0.00069	0.0050	J	mg/L	5	9/22/2016 9:36:54 PM	B37425
Lead	0.00067	0.00017	0.00050		mg/L	1	9/21/2016 10:34:43 PM	B37386
Selenium	0.0095	0.0011	0.0050		mg/L	5	9/22/2016 9:36:54 PM	B37425
Uranium	0.019	0.000051	0.00050		mg/L	1	9/21/2016 10:34:43 PM	B37386

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

Analytical Report

Lab Order 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-42

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 12:15:00 PM

Lab ID: 1609507-004

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0042	0.0011	0.0050	J	mg/L	5	9/22/2016 3:37:53 PM	27613
Lead	0.0018	0.000081	0.00050		mg/L	1	9/21/2016 6:22:25 PM	27613
Selenium	0.011	0.0037	0.020	J	mg/L	20	9/22/2016 3:49:58 PM	27613
Uranium	0.017	0.00087	0.0025		mg/L	5	9/22/2016 3:37:53 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:10:47 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Acenaphthene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Acenaphthylene	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Aniline	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Anthracene	ND	25	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Azobenzene	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Benz(a)anthracene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Benzo(a)pyrene	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Benzo(b)fluoranthene	ND	29	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Benzo(g,h,i)perylene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Benzo(k)fluoranthene	ND	30	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Benzoic acid	72	26	200	JD	µg/L	10	9/17/2016 9:35:09 PM	27489
Benzyl alcohol	ND	30	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Bis(2-chloroethoxy)methane	ND	28	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Bis(2-chloroethyl)ether	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Bis(2-chloroisopropyl)ether	ND	19	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Bis(2-ethylhexyl)phthalate	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4-Bromophenyl phenyl ether	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Butyl benzyl phthalate	ND	25	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Carbazole	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4-Chloro-3-methylphenol	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4-Chloroaniline	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2-Chloronaphthalene	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2-Chlorophenol	ND	22	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4-Chlorophenyl phenyl ether	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Chrysene	ND	28	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Di-n-butyl phthalate	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Di-n-octyl phthalate	ND	20	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Dibenz(a,h)anthracene	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Dibenzofuran	ND	25	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
1,2-Dichlorobenzene	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
1,3-Dichlorobenzene	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-42

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 12:15:00 PM

Lab ID: 1609507-004

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
1,4-Dichlorobenzene	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
3,3'-Dichlorobenzidine	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Diethyl phthalate	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Dimethyl phthalate	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2,4-Dichlorophenol	ND	23	200	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2,4-Dimethylphenol	ND	30	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4,6-Dinitro-2-methylphenol	ND	18	200	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2,4-Dinitrophenol	ND	28	200	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2,4-Dinitrotoluene	ND	31	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2,6-Dinitrotoluene	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Fluoranthene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Fluorene	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Hexachlorobenzene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Hexachlorobutadiene	ND	22	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Hexachlorocyclopentadiene	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Hexachloroethane	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Indeno(1,2,3-cd)pyrene	ND	30	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Isophorone	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
1-Methylnaphthalene	170	29	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2-Methylnaphthalene	ND	29	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2-Methylphenol	ND	25	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
3+4-Methylphenol	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
N-Nitrosodi-n-propylamine	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
N-Nitrosodimethylamine	ND	22	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
N-Nitrosodiphenylamine	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Naphthalene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2-Nitroaniline	ND	28	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
3-Nitroaniline	ND	29	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4-Nitroaniline	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Nitrobenzene	ND	28	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2-Nitrophenol	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4-Nitrophenol	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Pentachlorophenol	ND	23	200	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Phenanthrene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Phenol	ND	20	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Pyrene	ND	31	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Pyridine	ND	22	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
1,2,4-Trichlorobenzene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2,4,5-Trichlorophenol	ND	22	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-42

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 12:15:00 PM

Lab ID: 1609507-004

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
2,4,6-Trichlorophenol	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Surr: 2-Fluorophenol	0	0	15-123	SD	%Rec	10	9/17/2016 9:35:09 PM	27489
Surr: Phenol-d5	0	0	15-124	SD	%Rec	10	9/17/2016 9:35:09 PM	27489
Surr: 2,4,6-Tribromophenol	0	0	18.4-134	SD	%Rec	10	9/17/2016 9:35:09 PM	27489
Surr: Nitrobenzene-d5	0	0	28.8-134	SD	%Rec	10	9/17/2016 9:35:09 PM	27489
Surr: 2-Fluorobiphenyl	0	0	35.9-125	SD	%Rec	10	9/17/2016 9:35:09 PM	27489
Surr: 4-Terphenyl-d14	0	0	15-146	SD	%Rec	10	9/17/2016 9:35:09 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Benzene	4.0	0.096	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Toluene	0.33	0.12	1.0	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
Ethylbenzene	1.8	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Methyl tert-butyl ether (MTBE)	0.56	0.21	1.0	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2,4-Trimethylbenzene	6.6	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,3,5-Trimethylbenzene	2.9	0.12	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2-Dichloroethane (EDC)	0.98	0.12	1.0	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Naphthalene	26	0.093	2.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1-Methylnaphthalene	13	0.20	4.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
2-Methylnaphthalene	8.3	0.16	4.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Acetone	31	4.9	10		µg/L	1	9/13/2016 3:40:25 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
2-Butanone	8.3	0.74	10	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 3:40:25 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-42

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 12:15:00 PM

Lab ID: 1609507-004

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
2-Hexanone	2.2	0.84	10	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
Isopropylbenzene	0.58	0.10	1.0	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
4-Isopropyltoluene	1.8	0.14	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
4-Methyl-2-pentanone	3.2	0.43	10	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
n-Propylbenzene	0.72	0.13	1.0	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
sec-Butylbenzene	0.41	0.12	1.0	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Xylenes, Total	25	0.37	1.5		µg/L	1	9/13/2016 3:40:25 PM	R37165
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	9/13/2016 3:40:25 PM	R37165
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	9/13/2016 3:40:25 PM	R37165
Surr: Dibromofluoromethane	102	0	70-130		%Rec	1	9/13/2016 3:40:25 PM	R37165
Surr: Toluene-d8	95.6	0	70-130		%Rec	1	9/13/2016 3:40:25 PM	R37165

EPA METHOD 8015D: GASOLINE RANGE

Analyst: **AG**

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Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG	
Gasoline Range Organics (GRO)	0.70	0.015	0.050		mg/L	1	9/13/2016 3:40:25 PM	G37165
Surr: BFB	144	0	70-130	S	%Rec	1	9/13/2016 3:40:25 PM	G37165

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2016 3RD QTR (MKTF)

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

Lab ID: 1609507-005

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

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	9/21/2016 7:32:51 PM	27623
EPA METHOD 8015M/D: DIESEL RANGE								
							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/13/2016 12:16:57 AM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 12:16:57 AM	27435
Surr: DNOP	162	0	77.1-144	S	%Rec	1	9/13/2016 12:16:57 AM	27435
EPA METHOD 300.0: ANIONS								
							Analyst: LGT	
Fluoride	0.18	0.050	0.10		mg/L	1	9/13/2016 12:09:47 AM	R37147
Chloride	460	2.5	25		mg/L	50	9/24/2016 2:34:58 AM	A37469
Bromide	1.2	0.044	0.10		mg/L	1	9/13/2016 12:09:47 AM	R37147
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/13/2016 12:09:47 AM	R37147
Sulfate	91	2.8	10		mg/L	20	9/13/2016 12:22:11 AM	R37147
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 11:41:57 PM	A37294
EPA METHOD 200.7: DISSOLVED METALS								
							Analyst: ELS	
Barium	0.050	0.0013	0.0020		mg/L	1	9/29/2016 3:08:47 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 3:08:47 PM	E37552
Calcium	29	0.50	1.0		mg/L	1	9/29/2016 3:08:47 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 3:08:47 PM	E37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 3:08:47 PM	E37552
Iron	0.027	0.020	0.020		mg/L	1	9/29/2016 3:08:47 PM	E37552
Magnesium	5.9	0.50	1.0		mg/L	1	9/29/2016 3:08:47 PM	E37552
Manganese	0.074	0.00032	0.0020	*	mg/L	1	9/29/2016 3:08:47 PM	E37552
Potassium	0.64	0.50	1.0	J	mg/L	1	9/29/2016 3:08:47 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 3:08:47 PM	E37552
Sodium	630	5.0	10		mg/L	10	9/29/2016 3:10:49 PM	E37552
Zinc	0.0095	0.0028	0.010	J	mg/L	1	9/29/2016 3:08:47 PM	E37552
EPA METHOD 200.7: TOTAL METALS								
							Analyst: ELS	
Barium	0.086	0.00079	0.0020		mg/L	1	10/3/2016 7:21:22 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 7:21:22 PM	27613
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 7:21:22 PM	27613
Copper	0.013	0.0030	0.0060		mg/L	1	10/3/2016 7:21:22 PM	27613
Iron	1.8	0.10	0.10	*	mg/L	5	10/3/2016 7:23:17 PM	27613
Manganese	0.12	0.00027	0.0020	*	mg/L	1	10/3/2016 7:21:22 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 7:21:22 PM	27613
Zinc	0.016	0.0027	0.010		mg/L	1	10/3/2016 7:21:22 PM	27613
EPA 200.8: DISSOLVED METALS								
							Analyst: JLF	
Arsenic	0.0038	0.00069	0.0050	J	mg/L	5	9/23/2016 11:29:48 AM	A37462
Lead	0.00031	0.00017	0.00050	J	mg/L	1	9/22/2016 9:42:03 PM	B37425

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2016 3RD QTR (MKTF)

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

Lab ID: 1609507-005

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Selenium	0.0072	0.0011	0.0050		mg/L	5	9/23/2016 11:29:48 AM	A37462
Uranium	0.059	0.00026	0.0025	*	mg/L	5	9/23/2016 11:29:48 AM	A37462
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0047	0.0011	0.0050	J	mg/L	5	9/22/2016 3:52:59 PM	27613
Lead	0.0023	0.000081	0.00050		mg/L	1	9/21/2016 6:31:27 PM	27613
Selenium	0.0069	0.00094	0.0050		mg/L	5	9/22/2016 3:52:59 PM	27613
Uranium	0.058	0.00087	0.0025	*	mg/L	5	9/22/2016 3:52:59 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:12:51 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Benzoic acid	12	2.6	20	J	µg/L	1	9/17/2016 11:52:05 AM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Bis(2-ethylhexyl)phthalate	4.6	2.6	10	J	µg/L	1	9/17/2016 11:52:05 AM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 11:52:05 AM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Di-n-octyl phthalate	3.8	2.0	10	J	µg/L	1	9/17/2016 11:52:05 AM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2016 3RD QTR (MKTF)

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

Lab ID: 1609507-005

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 11:52:05 AM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
3,3'-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/17/2016 11:52:05 AM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 11:52:05 AM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 11:52:05 AM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 11:52:05 AM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 11:52:05 AM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 11:52:05 AM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 11:52:05 AM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 11:52:05 AM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 11:52:05 AM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 11:52:05 AM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 11:52:05 AM	27489

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	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Analytical Report

Lab Order 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2016 3RD QTR (MKTF)

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

Lab ID: 1609507-005

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 11:52:05 AM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Surr: 2-Fluorophenol	22.9	0	15-123		%Rec	1	9/17/2016 11:52:05 AM	27489
Surr: Phenol-d5	21.2	0	15-124		%Rec	1	9/17/2016 11:52:05 AM	27489
Surr: 2,4,6-Tribromophenol	58.0	0	18.4-134		%Rec	1	9/17/2016 11:52:05 AM	27489
Surr: Nitrobenzene-d5	64.0	0	28.8-134		%Rec	1	9/17/2016 11:52:05 AM	27489
Surr: 2-Fluorobiphenyl	53.6	0	35.9-125		%Rec	1	9/17/2016 11:52:05 AM	27489
Surr: 4-Terphenyl-d14	38.5	0	15-146		%Rec	1	9/17/2016 11:52:05 AM	27489
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Benzene	0.47	0.19	2.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
Toluene	ND	0.24	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Ethylbenzene	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Methyl tert-butyl ether (MTBE)	750	4.2	20		µg/L	20	9/13/2016 4:09:18 PM	R37165
1,2,4-Trimethylbenzene	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,3,5-Trimethylbenzene	ND	0.23	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2-Dichloroethane (EDC)	17	0.23	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Naphthalene	ND	0.19	4.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1-Methylnaphthalene	ND	0.41	8.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
2-Methylnaphthalene	ND	0.32	8.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Acetone	ND	9.8	20		µg/L	2	9/13/2016 4:38:15 PM	R37165
Bromobenzene	ND	0.20	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Bromodichloromethane	ND	0.28	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Bromoform	ND	0.20	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Bromomethane	ND	1.6	6.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
2-Butanone	ND	1.5	20		µg/L	2	9/13/2016 4:38:15 PM	R37165
Carbon disulfide	ND	1.2	20		µg/L	2	9/13/2016 4:38:15 PM	R37165
Carbon Tetrachloride	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Chlorobenzene	ND	0.23	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Chloroethane	ND	0.38	4.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Chloroform	ND	0.18	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Chloromethane	ND	0.43	6.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
2-Chlorotoluene	ND	0.80	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
4-Chlorotoluene	ND	0.26	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
cis-1,2-DCE	1.5	0.25	2.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
cis-1,3-Dichloropropene	ND	0.21	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.47	4.0		µg/L	2	9/13/2016 4:38:15 PM	R37165

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Analytical Report

Lab Order 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2016 3RD QTR (MKTF)

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

Lab ID: 1609507-005

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Dibromochloromethane	ND	0.17	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Dibromomethane	ND	0.24	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2-Dichlorobenzene	ND	0.80	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,3-Dichlorobenzene	ND	0.29	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,4-Dichlorobenzene	ND	0.29	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Dichlorodifluoromethane	ND	0.71	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1-Dichloroethane	12	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1-Dichloroethene	26	0.21	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2-Dichloropropane	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,3-Dichloropropane	ND	0.31	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
2,2-Dichloropropane	ND	0.33	4.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1-Dichloropropene	ND	0.27	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Hexachlorobutadiene	ND	0.40	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
2-Hexanone	ND	1.7	20		µg/L	2	9/13/2016 4:38:15 PM	R37165
Isopropylbenzene	0.27	0.21	2.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
4-Isopropyltoluene	ND	0.28	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
4-Methyl-2-pentanone	ND	0.86	20		µg/L	2	9/13/2016 4:38:15 PM	R37165
Methylene Chloride	1.0	0.37	6.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
n-Butylbenzene	ND	0.32	6.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
n-Propylbenzene	ND	0.26	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
sec-Butylbenzene	1.1	0.25	2.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
Styrene	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
tert-Butylbenzene	ND	0.23	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.26	4.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Tetrachloroethene (PCE)	ND	0.30	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
trans-1,2-DCE	ND	0.80	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
trans-1,3-Dichloropropene	ND	0.21	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2,3-Trichlorobenzene	ND	0.23	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2,4-Trichlorobenzene	ND	0.27	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1,1-Trichloroethane	0.61	0.18	2.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1,2-Trichloroethane	1.1	0.25	2.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
Trichloroethene (TCE)	ND	0.35	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Trichlorofluoromethane	ND	0.41	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2,3-Trichloropropane	ND	0.40	4.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Vinyl chloride	ND	0.39	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Xylenes, Total	ND	0.73	3.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	2	9/13/2016 4:38:15 PM	R37165
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	2	9/13/2016 4:38:15 PM	R37165

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2016 3RD QTR (MKTF)

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

Lab ID: 1609507-005

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Surr: Dibromofluoromethane	105	0	70-130		%Rec	2	9/13/2016 4:38:15 PM	R37165
Surr: Toluene-d8	96.0	0	70-130		%Rec	2	9/13/2016 4:38:15 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG	
Gasoline Range Organics (GRO)	0.79	0.030	0.10		mg/L	2	9/13/2016 4:38:15 PM	G37165
Surr: BFB	99.5	0	70-130		%Rec	2	9/13/2016 4:38:15 PM	G37165

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB090916

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 2:20:00 PM

Lab ID: 1609507-006

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

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	9/13/2016 12:38:49 AM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 12:38:49 AM	27435
Surr: DNOP	160	0	77.1-144	S	%Rec	1	9/13/2016 12:38:49 AM	27435
EPA METHOD 300.0: ANIONS							Analyst: LGT	
Fluoride	ND	0.050	0.10		mg/L	1	9/13/2016 12:34:35 AM	R37147
Chloride	ND	0.051	0.50		mg/L	1	9/13/2016 12:34:35 AM	R37147
Bromide	ND	0.044	0.10		mg/L	1	9/13/2016 12:34:35 AM	R37147
Phosphorus, Orthophosphate (As P')	0.28	0.076	0.50	JH	mg/L	1	9/13/2016 12:34:35 AM	R37147
Sulfate	ND	0.14	0.50		mg/L	1	9/13/2016 12:34:35 AM	R37147
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 11:54:21 PM	A37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	ND	0.0013	0.0020		mg/L	1	9/29/2016 3:12:37 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 3:12:37 PM	E37552
Calcium	ND	0.50	1.0		mg/L	1	9/29/2016 3:12:37 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 3:12:37 PM	E37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 3:12:37 PM	E37552
Iron	ND	0.020	0.020		mg/L	1	9/29/2016 3:12:37 PM	E37552
Magnesium	ND	0.50	1.0		mg/L	1	9/29/2016 3:12:37 PM	E37552
Manganese	ND	0.00032	0.0020		mg/L	1	9/29/2016 3:12:37 PM	E37552
Potassium	ND	0.50	1.0		mg/L	1	9/29/2016 3:12:37 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 3:12:37 PM	E37552
Sodium	ND	0.50	1.0		mg/L	1	9/29/2016 3:12:37 PM	E37552
Zinc	0.035	0.0028	0.010		mg/L	1	9/29/2016 3:12:37 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	ND	0.00079	0.0020		mg/L	1	10/3/2016 7:25:14 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 7:25:14 PM	27613
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 7:25:14 PM	27613
Copper	ND	0.0030	0.0060		mg/L	1	10/3/2016 7:25:14 PM	27613
Iron	ND	0.020	0.020		mg/L	1	10/3/2016 7:25:14 PM	27613
Manganese	0.00070	0.00027	0.0020	J	mg/L	1	10/3/2016 7:25:14 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 7:25:14 PM	27613
Zinc	ND	0.0027	0.010		mg/L	1	10/3/2016 7:25:14 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	ND	0.00014	0.0010		mg/L	1	9/22/2016 9:47:11 PM	B37425
Lead	ND	0.00017	0.00050		mg/L	1	9/22/2016 9:47:11 PM	B37425
Selenium	ND	0.00021	0.0010		mg/L	1	9/22/2016 9:47:11 PM	B37425
Uranium	ND	0.000051	0.00050		mg/L	1	9/23/2016 11:32:51 AM	A37462

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB090916

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 2:20:00 PM

Lab ID: 1609507-006

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.00022	0.00021	0.0010	J	mg/L	1	9/21/2016 6:34:27 PM	27613
Lead	ND	0.000081	0.00050		mg/L	1	9/21/2016 6:34:27 PM	27613
Selenium	ND	0.00019	0.0010		mg/L	1	9/21/2016 6:34:27 PM	27613
Uranium	ND	0.00017	0.00050		mg/L	1	9/21/2016 6:34:27 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:14:55 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Benzoic acid	7.2	2.6	20	J	µg/L	1	9/17/2016 12:19:45 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Bis(2-ethylhexyl)phthalate	3.3	2.6	10	J	µg/L	1	9/17/2016 12:19:45 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 12:19:45 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Di-n-octyl phthalate	3.5	2.0	10	J	µg/L	1	9/17/2016 12:19:45 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 12:19:45 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489

Refer to the QC Summary report and 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: FB090916

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 2:20:00 PM

Lab ID: 1609507-006

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
3,3'-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/17/2016 12:19:45 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 12:19:45 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 12:19:45 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 12:19:45 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 12:19:45 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 12:19:45 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 12:19:45 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 12:19:45 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 12:19:45 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 12:19:45 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 12:19:45 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 12:19:45 PM	27489

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB090916

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 2:20:00 PM

Lab ID: 1609507-006

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Surr: 2-Fluorophenol	50.7	0	15-123		%Rec	1	9/17/2016 12:19:45 PM	27489
Surr: Phenol-d5	36.9	0	15-124		%Rec	1	9/17/2016 12:19:45 PM	27489
Surr: 2,4,6-Tribromophenol	94.1	0	18.4-134		%Rec	1	9/17/2016 12:19:45 PM	27489
Surr: Nitrobenzene-d5	68.3	0	28.8-134		%Rec	1	9/17/2016 12:19:45 PM	27489
Surr: 2-Fluorobiphenyl	65.4	0	35.9-125		%Rec	1	9/17/2016 12:19:45 PM	27489
Surr: 4-Terphenyl-d14	48.8	0	15-146		%Rec	1	9/17/2016 12:19:45 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Benzene	ND	0.096	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Acetone	6.4	4.9	10	J	µg/L	1	9/13/2016 5:07:10 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 5:07:10 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 5:07:10 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB090916

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 2:20:00 PM

Lab ID: 1609507-006

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 5:07:10 PM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 5:07:10 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 5:07:10 PM	R37165
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	1	9/13/2016 5:07:10 PM	R37165
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	9/13/2016 5:07:10 PM	R37165
Surr: Dibromofluoromethane	103	0	70-130		%Rec	1	9/13/2016 5:07:10 PM	R37165
Surr: Toluene-d8	94.1	0	70-130		%Rec	1	9/13/2016 5:07:10 PM	R37165

EPA METHOD 8015D: GASOLINE RANGE

Analyst: **AG**

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB090916

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 2:20:00 PM

Lab ID: 1609507-006

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/13/2016 5:07:10 PM	G37165
Surr: BFB	99.8	0	70-130		%Rec	1	9/13/2016 5:07:10 PM	G37165

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-41

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 3:00:00 PM

Lab ID: 1609507-007

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

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	9/21/2016 7:48:01 PM	27623
EPA METHOD 8015M/D: DIESEL RANGE								
							Analyst: TOM	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/13/2016 1:00:36 AM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 1:00:36 AM	27435
Surr: DNOP	167	0	77.1-144	S	%Rec	1	9/13/2016 1:00:36 AM	27435
EPA METHOD 300.0: ANIONS								
							Analyst: LGT	
Fluoride	0.29	0.050	0.10		mg/L	1	9/13/2016 12:59:24 AM	R37147
Chloride	910	2.5	25		mg/L	50	9/24/2016 2:47:23 AM	A37469
Bromide	2.3	0.044	0.10		mg/L	1	9/13/2016 12:59:24 AM	R37147
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/13/2016 12:59:24 AM	R37147
Sulfate	60	2.8	10		mg/L	20	9/13/2016 1:11:49 AM	R37147
Nitrate+Nitrite as N	5.7	0.46	1.0		mg/L	5	9/18/2016 12:06:46 AM	A37294
EPA METHOD 200.7: DISSOLVED METALS								
							Analyst: ELS	
Barium	0.059	0.0013	0.0020		mg/L	1	9/29/2016 3:16:36 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 3:16:36 PM	E37552
Calcium	13	0.50	1.0		mg/L	1	9/29/2016 3:16:36 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 3:16:36 PM	E37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 3:16:36 PM	E37552
Iron	ND	0.020	0.020		mg/L	1	9/29/2016 3:16:36 PM	E37552
Magnesium	1.6	0.50	1.0		mg/L	1	9/29/2016 3:16:36 PM	E37552
Manganese	0.0012	0.00032	0.0020	J	mg/L	1	9/29/2016 3:16:36 PM	E37552
Potassium	1.5	0.50	1.0		mg/L	1	9/29/2016 3:16:36 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 3:16:36 PM	E37552
Sodium	640	5.0	10		mg/L	10	9/29/2016 3:18:39 PM	E37552
Zinc	0.0098	0.0028	0.010	J	mg/L	1	9/29/2016 3:16:36 PM	E37552
EPA METHOD 200.7: TOTAL METALS								
							Analyst: ELS	
Barium	0.12	0.00079	0.0020		mg/L	1	10/3/2016 7:29:42 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 7:29:42 PM	27613
Chromium	0.0030	0.0027	0.0060	J	mg/L	1	10/3/2016 7:29:42 PM	27613
Copper	0.0031	0.0030	0.0060	J	mg/L	1	10/3/2016 7:29:42 PM	27613
Iron	2.5	0.10	0.10	*	mg/L	5	10/3/2016 7:31:26 PM	27613
Manganese	0.12	0.00027	0.0020	*	mg/L	1	10/3/2016 7:29:42 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 7:29:42 PM	27613
Zinc	0.018	0.0027	0.010		mg/L	1	10/3/2016 7:29:42 PM	27613
EPA 200.8: DISSOLVED METALS								
							Analyst: JLF	
Arsenic	ND	0.0069	0.050		mg/L	50	9/23/2016 11:48:12 AM	A37462
Lead	ND	0.00017	0.00050		mg/L	1	9/22/2016 9:52:19 PM	B37425

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-41

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 3:00:00 PM

Lab ID: 1609507-007

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Selenium	0.048	0.0011	0.0050		mg/L	5	9/23/2016 11:38:58 AM	A37462
Uranium	0.014	0.000051	0.00050		mg/L	1	9/23/2016 11:35:54 AM	A37462
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0061	0.0021	0.010	J	mg/L	10	9/22/2016 4:05:05 PM	27613
Lead	0.0037	0.000081	0.00050		mg/L	1	9/21/2016 6:37:28 PM	27613
Selenium	0.045	0.0094	0.050	J	mg/L	50	9/22/2016 4:08:05 PM	27613
Uranium	0.015	0.00017	0.00050		mg/L	1	9/21/2016 6:37:28 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:21:14 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Benzoic acid	9.8	2.6	20	J	µg/L	1	9/17/2016 12:47:27 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Bis(2-ethylhexyl)phthalate	3.1	2.6	10	J	µg/L	1	9/17/2016 12:47:27 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 12:47:27 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Di-n-octyl phthalate	3.5	2.0	10	J	µg/L	1	9/17/2016 12:47:27 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-41

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 3:00:00 PM

Lab ID: 1609507-007

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 12:47:27 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
3,3'-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/17/2016 12:47:27 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 12:47:27 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 12:47:27 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 12:47:27 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 12:47:27 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 12:47:27 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 12:47:27 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 12:47:27 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 12:47:27 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 12:47:27 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 12:47:27 PM	27489

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-41

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 3:00:00 PM

Lab ID: 1609507-007

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 12:47:27 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Surr: 2-Fluorophenol	39.9	0	15-123		%Rec	1	9/17/2016 12:47:27 PM	27489
Surr: Phenol-d5	31.5	0	15-124		%Rec	1	9/17/2016 12:47:27 PM	27489
Surr: 2,4,6-Tribromophenol	81.1	0	18.4-134		%Rec	1	9/17/2016 12:47:27 PM	27489
Surr: Nitrobenzene-d5	60.7	0	28.8-134		%Rec	1	9/17/2016 12:47:27 PM	27489
Surr: 2-Fluorobiphenyl	56.1	0	35.9-125		%Rec	1	9/17/2016 12:47:27 PM	27489
Surr: 4-Terphenyl-d14	42.3	0	15-146		%Rec	1	9/17/2016 12:47:27 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Benzene	ND	0.096	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Methyl tert-butyl ether (MTBE)	0.41	0.21	1.0	J	µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2-Dichloroethane (EDC)	2.4	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Acetone	ND	4.9	10		µg/L	1	9/13/2016 5:35:54 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 5:35:54 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 5:35:54 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 5:35:54 PM	R37165

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-41

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 3:00:00 PM

Lab ID: 1609507-007

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1-Dichloroethane	2.5	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1-Dichloroethene	6.1	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 5:35:54 PM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 5:35:54 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1,2-Trichloroethane	0.53	0.13	1.0	J	µg/L	1	9/13/2016 5:35:54 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 5:35:54 PM	R37165
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	9/13/2016 5:35:54 PM	R37165
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	9/13/2016 5:35:54 PM	R37165

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-41

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016 3:00:00 PM

Lab ID: 1609507-007

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Surr: Dibromofluoromethane	103	0	70-130		%Rec	1	9/13/2016 5:35:54 PM	R37165
Surr: Toluene-d8	96.3	0	70-130		%Rec	1	9/13/2016 5:35:54 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/13/2016 5:35:54 PM	G37165
Surr: BFB	98.8	0	70-130		%Rec	1	9/13/2016 5:35:54 PM	G37165

Refer to the QC Summary report and 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: DUP03

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016

Lab ID: 1609507-008

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

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	9/13/2016 1:22:32 AM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 1:22:32 AM	27435
Surr: DNOP	168	0	77.1-144	S	%Rec	1	9/13/2016 1:22:32 AM	27435
EPA METHOD 300.0: ANIONS							Analyst: LGT	
Fluoride	ND	1.0	2.0		mg/L	20	9/13/2016 2:01:28 AM	R37147
Chloride	18000	51	500		mg/L	1000	9/24/2016 2:59:47 AM	A37469
Bromide	12	0.87	2.0		mg/L	20	9/13/2016 2:01:28 AM	R37147
Phosphorus, Orthophosphate (As P')	6.4	1.5	10	J	mg/L	20	9/13/2016 2:01:28 AM	R37147
Sulfate	1600	140	500		mg/L	1000	9/24/2016 2:59:47 AM	A37469
Nitrate+Nitrite as N	ND	4.6	10		mg/L	50	9/28/2016 3:57:49 PM	R37561
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	0.086	0.0013	0.0020		mg/L	1	9/29/2016 3:20:30 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 3:20:30 PM	E37552
Calcium	3000	50	100		mg/L	100	9/29/2016 3:26:32 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 3:20:30 PM	E37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 3:20:30 PM	E37552
Iron	0.086	0.020	0.020		mg/L	1	9/29/2016 3:20:30 PM	E37552
Magnesium	470	2.5	5.0		mg/L	5	9/29/2016 3:22:39 PM	E37552
Manganese	23	0.032	0.20	*	mg/L	100	9/29/2016 3:26:32 PM	E37552
Potassium	8.9	0.50	1.0		mg/L	1	9/29/2016 3:20:30 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 3:20:30 PM	E37552
Sodium	6500	50	100		mg/L	100	9/29/2016 3:26:32 PM	E37552
Zinc	0.016	0.0028	0.010		mg/L	1	9/29/2016 3:20:30 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.17	0.0040	0.010		mg/L	5	10/3/2016 7:35:27 PM	27613
Cadmium	ND	0.0074	0.010		mg/L	5	10/3/2016 7:35:27 PM	27613
Chromium	ND	0.013	0.030		mg/L	5	10/3/2016 7:35:27 PM	27613
Copper	ND	0.015	0.030		mg/L	5	10/3/2016 7:35:27 PM	27613
Iron	4.3	0.10	0.10	*	mg/L	5	10/3/2016 7:35:27 PM	27613
Manganese	22	0.014	0.10	*	mg/L	50	10/5/2016 1:52:15 PM	27613
Silver	ND	0.0077	0.025		mg/L	5	10/3/2016 7:35:27 PM	27613
Zinc	0.029	0.013	0.050	J	mg/L	5	10/3/2016 7:35:27 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.025	0.0069	0.050	J*	mg/L	50	9/23/2016 12:00:25 PM	A37462
Lead	ND	0.00084	0.0025		mg/L	5	9/23/2016 11:51:15 AM	A37462
Selenium	0.099	0.021	0.10	J*	mg/L	100	9/23/2016 2:04:19 PM	B37462
Uranium	0.24	0.0026	0.025	*	mg/L	50	9/23/2016 12:00:25 PM	A37462

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: DUP03

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016

Lab ID: 1609507-008

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.025	0.011	0.050	J*	mg/L	50	9/22/2016 4:18:31 PM	27613
Lead	0.0074	0.00041	0.0025		mg/L	5	9/22/2016 4:11:06 PM	27613
Selenium	0.079	0.019	0.10	J*	mg/L	100	9/22/2016 4:21:32 PM	27613
Uranium	0.25	0.0087	0.025	*	mg/L	50	9/22/2016 4:18:31 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:23:20 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Benzoic acid	13	2.6	20	J	µg/L	1	9/17/2016 1:15:10 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Bis(2-ethylhexyl)phthalate	3.4	2.6	10	J	µg/L	1	9/17/2016 1:15:10 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 1:15:10 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Di-n-octyl phthalate	3.4	2.0	10	J	µg/L	1	9/17/2016 1:15:10 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 1:15:10 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489

Refer to the QC Summary report and 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: DUP03

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016

Lab ID: 1609507-008

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
3,3'-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/17/2016 1:15:10 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 1:15:10 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 1:15:10 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 1:15:10 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 1:15:10 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 1:15:10 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 1:15:10 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 1:15:10 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 1:15:10 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 1:15:10 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 1:15:10 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 1:15:10 PM	27489

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: DUP03

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016

Lab ID: 1609507-008

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Surr: 2-Fluorophenol	16.4	0	15-123		%Rec	1	9/17/2016 1:15:10 PM	27489
Surr: Phenol-d5	10.0	0	15-124	S	%Rec	1	9/17/2016 1:15:10 PM	27489
Surr: 2,4,6-Tribromophenol	50.3	0	18.4-134		%Rec	1	9/17/2016 1:15:10 PM	27489
Surr: Nitrobenzene-d5	54.2	0	28.8-134		%Rec	1	9/17/2016 1:15:10 PM	27489
Surr: 2-Fluorobiphenyl	44.4	0	35.9-125		%Rec	1	9/17/2016 1:15:10 PM	27489
Surr: 4-Terphenyl-d14	29.3	0	15-146		%Rec	1	9/17/2016 1:15:10 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: AG	
Benzene	ND	0.096	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Acetone	ND	4.9	10		µg/L	1	9/13/2016 6:04:36 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 6:04:36 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 6:04:36 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: DUP03

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016

Lab ID: 1609507-008

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: AG	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 6:04:36 PM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 6:04:36 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 6:04:36 PM	R37165
Surr: 1,2-Dichloroethane-d4	99.3	0	70-130		%Rec	1	9/13/2016 6:04:36 PM	R37165
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	9/13/2016 6:04:36 PM	R37165
Surr: Dibromofluoromethane	101	0	70-130		%Rec	1	9/13/2016 6:04:36 PM	R37165
Surr: Toluene-d8	96.2	0	70-130		%Rec	1	9/13/2016 6:04:36 PM	R37165

EPA METHOD 8015D: GASOLINE RANGE

Analyst: **AG**

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: DUP03

Project: 2016 3RD QTR (MKTF)

Collection Date: 9/9/2016

Lab ID: 1609507-008

Matrix: AQUEOUS

Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: AG	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/13/2016 6:04:36 PM	G37165
Surr: BFB	99.0	0	70-130		%Rec	1	9/13/2016 6:04:36 PM	G37165

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2016 3RD QTR (MKTF)

Collection Date:

Lab ID: 1609507-009

Matrix: TRIP BLANK

Received Date: 9/10/2016 9:00:00 AM

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	9/13/2016 6:33:17 PM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Acetone	6.8	4.9	10	J	µg/L	1	9/13/2016 6:33:17 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 6:33:17 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 6:33:17 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 6:33:17 PM	R37165

Refer to the QC Summary report and 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 1609507

Date Reported: 10/25/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: 2016 3RD QTR (MKTF)

Collection Date:

Lab ID: 1609507-009

Matrix: TRIP BLANK

Received Date: 9/10/2016 9:00:00 AM

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	9/13/2016 6:33:17 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 6:33:17 PM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 6:33:17 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 6:33:17 PM	R37165
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	9/13/2016 6:33:17 PM	R37165
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	9/13/2016 6:33:17 PM	R37165
Surr: Dibromofluoromethane	104	0	70-130		%Rec	1	9/13/2016 6:33:17 PM	R37165
Surr: Toluene-d8	96.2	0	70-130		%Rec	1	9/13/2016 6:33:17 PM	R37165

Refer to the QC Summary report and 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#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	MB-E		SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	PBW		Batch ID:	E37552		RunNo:	37552			
Prep Date:			Analysis Date:	9/29/2016		SeqNo:	1169123	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-E		SampType:	LCS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	LCSW		Batch ID:	E37552		RunNo:	37552			
Prep Date:			Analysis Date:	9/29/2016		SeqNo:	1169127	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	99.9	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Calcium	50	1.0	50.00	0	99.5	85	115			
Chromium	0.49	0.0060	0.5000	0	98.0	85	115			
Copper	0.50	0.0060	0.5000	0	99.5	85	115			
Iron	0.50	0.020	0.5000	0	99.8	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Manganese	0.50	0.0020	0.5000	0	99.4	85	115			
Potassium	49	1.0	50.00	0	97.3	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	49	1.0	50.00	0	98.6	85	115			
Zinc	0.49	0.010	0.5000	0	97.6	85	115			

Sample ID	LLCS-E		SampType:	LCSLL		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	E37552		RunNo:	37552			
Prep Date:			Analysis Date:	9/29/2016		SeqNo:	1169128	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0018	0.0020	0.002000	0	91.0	50	150			J
Cadmium	0.0021	0.0020	0.002000	0	103	50	150			
Calcium	0.51	1.0	0.5000	0	102	50	150			J
Chromium	0.0064	0.0060	0.006000	0	107	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#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	LLLCS-E		SampType: LCSLL		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: E37552		RunNo: 37552					
Prep Date:			Analysis Date: 9/29/2016		SeqNo: 1169128		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0081	0.0060	0.006000	0	135	50	150			
Iron	0.021	0.020	0.02000	0	106	50	150			
Magnesium	0.52	1.0	0.5000	0	105	50	150			J
Manganese	0.0020	0.0020	0.002000	0	101	50	150			
Potassium	0.53	1.0	0.5000	0	105	50	150			J
Silver	0.0050	0.0050	0.005000	0	100	50	150			
Sodium	0.50	1.0	0.5000	0	100	50	150			J
Zinc	0.0050	0.010	0.005000	0	101	50	150			J

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	MB-27613		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 27613		RunNo: 37369					
Prep Date:	9/20/2016		Analysis Date: 9/21/2016		SeqNo: 1161052		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	0.00038	0.0020								J
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-27613		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 27613		RunNo: 37369					
Prep Date:	9/20/2016		Analysis Date: 9/21/2016		SeqNo: 1161053		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.6	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.48	0.0060	0.5000	0	96.6	85	115			
Copper	0.48	0.0060	0.5000	0	95.5	85	115			
Iron	0.49	0.020	0.5000	0	97.6	85	115			
Manganese	0.48	0.0020	0.5000	0	95.7	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			
Zinc	0.48	0.010	0.5000	0	95.9	85	115			

Sample ID	LLLCS-27613		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 27613		RunNo: 37369					
Prep Date:	9/20/2016		Analysis Date: 9/21/2016		SeqNo: 1161054		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0024	0.0020	0.002000	0	121	50	150			
Cadmium	0.0020	0.0020	0.002000	0	101	50	150			
Chromium	0.0062	0.0060	0.006000	0	104	50	150			
Copper	0.0053	0.0060	0.006000	0	88.2	50	150			J
Manganese	0.0020	0.0020	0.002000	0	102	50	150			
Silver	0.0051	0.0050	0.005000	0	102	50	150			
Zinc	0.0054	0.010	0.005000	0	109	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#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	LLLCS-27613		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 27613		RunNo: 37369					
Prep Date:	9/20/2016		Analysis Date: 9/21/2016		SeqNo: 1161124		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.020	0.020	0.02000	0	102	50	150			

Sample ID	1609507-001FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-44		Batch ID: 27613		RunNo: 37643					
Prep Date:	9/20/2016		Analysis Date: 10/3/2016		SeqNo: 1171758		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.71	0.0020	0.5000	0.2642	90.0	70	130			
Cadmium	0.47	0.0020	0.5000	0	93.2	70	130			
Chromium	0.48	0.0060	0.5000	0.03096	89.8	70	130			
Copper	0.52	0.0060	0.5000	0.01865	99.6	70	130			
Manganese	0.96	0.0020	0.5000	0.5286	85.7	70	130			
Zinc	0.55	0.010	0.5000	0.08861	92.3	70	130			

Sample ID	1609507-001FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-44		Batch ID: 27613		RunNo: 37643					
Prep Date:	9/20/2016		Analysis Date: 10/3/2016		SeqNo: 1171759		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.67	0.0020	0.5000	0.2642	80.8	70	130	6.69	20	
Cadmium	0.44	0.0020	0.5000	0	88.3	70	130	5.43	20	
Chromium	0.45	0.0060	0.5000	0.03096	83.8	70	130	6.43	20	
Copper	0.48	0.0060	0.5000	0.01865	92.4	70	130	7.12	20	
Manganese	0.90	0.0020	0.5000	0.5286	73.3	70	130	6.72	20	
Zinc	0.51	0.010	0.5000	0.08861	84.5	70	130	7.33	20	

Sample ID	1609507-002GMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-25		Batch ID: 27613		RunNo: 37643					
Prep Date:	9/20/2016		Analysis Date: 10/3/2016		SeqNo: 1171767		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.93	0.0020	0.5000	0.4482	96.1	70	130			
Cadmium	0.50	0.0020	0.5000	0	100	70	130			
Chromium	0.49	0.0060	0.5000	0	97.1	70	130			
Copper	0.54	0.0060	0.5000	0.005950	107	70	130			
Zinc	0.49	0.010	0.5000	0.01169	95.5	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#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	1609507-002GMSD			SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals		
Client ID:	MKTF-25			Batch ID:	27613		RunNo:	37643		
Prep Date:	9/20/2016			Analysis Date:	10/3/2016		SeqNo:	1171768		Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.94	0.0020	0.5000	0.4482	97.4	70	130	0.711	20	
Cadmium	0.51	0.0020	0.5000	0	101	70	130	1.18	20	
Chromium	0.49	0.0060	0.5000	0	98.9	70	130	1.85	20	
Copper	0.55	0.0060	0.5000	0.005950	108	70	130	1.15	20	
Zinc	0.50	0.010	0.5000	0.01169	96.9	70	130	1.39	20	

Sample ID	1609507-002GMS			SampType:	MS		TestCode:	EPA Method 200.7: Total Metals		
Client ID:	MKTF-25			Batch ID:	27613		RunNo:	37643		
Prep Date:	9/20/2016			Analysis Date:	10/3/2016		SeqNo:	1171770		Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	3.9	0.010	0.5000	3.385	93.8	70	130			

Sample ID	1609507-002GMSD			SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals		
Client ID:	MKTF-25			Batch ID:	27613		RunNo:	37643		
Prep Date:	9/20/2016			Analysis Date:	10/3/2016		SeqNo:	1171771		Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	3.9	0.010	0.5000	3.385	111	70	130	2.19	20	

Sample ID	1609507-001FMS			SampType:	MS		TestCode:	EPA Method 200.7: Total Metals		
Client ID:	MKTF-44			Batch ID:	27613		RunNo:	37699		
Prep Date:	9/20/2016			Analysis Date:	10/5/2016		SeqNo:	1174290		Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.026	0.025	0.1000	0	26.1	70	130			S

Sample ID	1609507-001FMSD			SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals		
Client ID:	MKTF-44			Batch ID:	27613		RunNo:	37699		
Prep Date:	9/20/2016			Analysis Date:	10/5/2016		SeqNo:	1174294		Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.027	0.025	0.1000	0	27.1	70	130	3.76	20	S

Sample ID	1609507-002GMS			SampType:	MS		TestCode:	EPA Method 200.7: Total Metals		
Client ID:	MKTF-25			Batch ID:	28020		RunNo:	37932		
Prep Date:	10/12/2016			Analysis Date:	10/13/2016		SeqNo:	1181988		Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.096	0.0050	0.1000	0	95.7	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#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	1609507-002GMSD			SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	MKTF-25			Batch ID:	28020		RunNo:	37932			
Prep Date:	10/12/2016			Analysis Date:	10/13/2016		SeqNo:	1181989		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Silver	0.097	0.0050	0.1000	0	97.0	70	130	1.37	20		

Sample ID	MB-28020		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 28020		RunNo: 37932					
Prep Date:	10/12/2016		Analysis Date: 10/13/2016		SeqNo: 1182663		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID	LCS-28020			SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW			Batch ID:	28020		RunNo:	37932			
Prep Date:	10/12/2016			Analysis Date:	10/13/2016		SeqNo:	1182664		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Silver	0.096	0.0050	0.1000	0	95.6	85	115				

Sample ID	LLLCS-28020		SampType: LCSLL		TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC		Batch ID: 28020		RunNo: 37932					
Prep Date:	10/12/2016		Analysis Date: 10/13/2016		SeqNo: 1182665		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.0042	0.0050	0.005000	0	85.0	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#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: B37386			RunNo: 37386						
Prep Date:	Analysis Date: 9/21/2016			SeqNo: 1162018		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	93.8	85	115			
Lead	0.012	0.00050	0.01250	0	97.0	85	115			
Selenium	0.025	0.0010	0.02500	0	99.9	85	115			
Uranium	0.013	0.00050	0.01250	0	103	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: B37386			RunNo: 37386						
Prep Date:	Analysis Date: 9/21/2016			SeqNo: 1162021		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00098	0.0010	0.001000	0	98.2	50	150			J
Lead	0.00050	0.00050	0.0005000	0	100	50	150			
Selenium	0.00098	0.0010	0.001000	0	97.5	50	150			J
Uranium	0.00051	0.00050	0.0005000	0	101	50	150			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: B37386			RunNo: 37386						
Prep Date:	Analysis Date: 9/21/2016			SeqNo: 1162023		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: B37425			RunNo: 37425						
Prep Date:	Analysis Date: 9/22/2016			SeqNo: 1163315		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	90.1	85	115			
Lead	0.012	0.00050	0.01250	0	93.2	85	115			
Selenium	0.023	0.0010	0.02500	0	90.3	85	115			
Uranium	0.011	0.00050	0.01250	0	90.9	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: B37425			RunNo: 37425						
Prep Date:	Analysis Date: 9/22/2016			SeqNo: 1163316		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#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	LLLCS		SampType:	LCSLL		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	B37425		RunNo:	37425			
Prep Date:			Analysis Date:	9/22/2016		SeqNo:	1163316	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00091	0.0010	0.001000	0	91.5	50	150			J
Lead	0.00052	0.00050	0.0005000	0	104	50	150			
Selenium	0.00092	0.0010	0.001000	0	91.9	50	150			J
Uranium	0.00048	0.00050	0.0005000	0	95.7	50	150			J

Sample ID	MB		SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	PBW		Batch ID:	B37425		RunNo:	37425			
Prep Date:			Analysis Date:	9/22/2016		SeqNo:	1163317	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	1609507-008EMSL		SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	DUP03		Batch ID:	A37462		RunNo:	37462			
Prep Date:			Analysis Date:	9/23/2016		SeqNo:	1164673	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.068	0.0025	0.06250	0	108	70	130			

Sample ID	LCS		SampType:	LCS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	LCSW		Batch ID:	A37462		RunNo:	37462			
Prep Date:			Analysis Date:	9/23/2016		SeqNo:	1164727	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	92.9	85	115			
Lead	0.012	0.00050	0.01250	0	96.1	85	115			
Selenium	0.023	0.0010	0.02500	0	91.2	85	115			
Uranium	0.012	0.00050	0.01250	0	93.0	85	115			

Sample ID	LCS		SampType:	LCS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	LCSW		Batch ID:	B37462		RunNo:	37462			
Prep Date:			Analysis Date:	9/23/2016		SeqNo:	1164728	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	95.2	85	115			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	LLLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: A37462		RunNo: 37462					
Prep Date:			Analysis Date: 9/23/2016		SeqNo: 1164730		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00089	0.0010	0.001000	0	89.2	50	150			J
Lead	0.00050	0.00050	0.0005000	0	99.9	50	150			J
Selenium	0.00087	0.0010	0.001000	0	87.1	50	150			J
Uranium	0.00046	0.00050	0.0005000	0	92.8	50	150			J

Sample ID	LLCS		SampType: LCSLL		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: B37462		RunNo: 37462					
Prep Date:			Analysis Date: 9/23/2016		SeqNo: 1164731		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.0011	0.0010	0.001000	0	112	50	150			

Sample ID	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: A37462		RunNo: 37462					
Prep Date:			Analysis Date: 9/23/2016		SeqNo: 1164733		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	MB		SampType: MBLK		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW		Batch ID: B37462		RunNo: 37462					
Prep Date:			Analysis Date: 9/23/2016		SeqNo: 1164734		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	1609507-004FMSDL			SampType:	MSDLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	MKTF-42			Batch ID:	27613			RunNo:	37385		
Prep Date:	9/20/2016			Analysis Date:	9/21/2016			SeqNo:	1161935		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.013	0.00050	0.01250	0.001838	89.7	70	130	8.66	20		

Sample ID	1609507-004FMSLL			SampType:	MSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	MKTF-42			Batch ID:	27613			RunNo:	37385		
Prep Date:	9/20/2016			Analysis Date:	9/21/2016			SeqNo:	1161936		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.014	0.00050	0.01250	0.001838	99.2	70	130				

Sample ID	MB-27613			SampType:	MBLK			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	PBW			Batch ID:	27613			RunNo:	37385		
Prep Date:	9/20/2016			Analysis Date:	9/21/2016			SeqNo:	1161948		
								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-27613			SampType:	LCS			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	LCSW			Batch ID:	27613			RunNo:	37385		
Prep Date:	9/20/2016			Analysis Date:	9/21/2016			SeqNo:	1161951		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.023	0.0010	0.02500	0	91.9	85	115				
Lead	0.011	0.00050	0.01250	0	90.1	85	115				
Selenium	0.024	0.0010	0.02500	0	94.8	85	115				
Uranium	0.012	0.00050	0.01250	0	95.0	85	115				

Sample ID	MSLLCS-27613			SampType:	LCSLL			TestCode:	200.8 ICPMS Metals:Total		
Client ID:	BatchQC			Batch ID:	27613			RunNo:	37385		
Prep Date:	9/20/2016			Analysis Date:	9/21/2016			SeqNo:	1161954		
								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	114	50	150				
Lead	0.00046	0.00050	0.0005000	0	92.7	50	150				J
Selenium	0.00097	0.0010	0.001000	0	96.7	50	150				J
Uranium	0.00046	0.00050	0.0005000	0	92.7	50	150				J

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	1609507-003FMSLL		SampType: MSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	MKTF-43		Batch ID: 27613		RunNo: 37417					
Prep Date:	9/20/2016		Analysis Date: 9/22/2016		SeqNo: 1162922		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.018	0.0025	0.01250	0.004079	108	70	130			

Sample ID	1609507-004FMSDL		SampType: MSDLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	MKTF-42		Batch ID: 27613		RunNo: 37417					
Prep Date:	9/20/2016		Analysis Date: 9/22/2016		SeqNo: 1162926		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0050	0.02500	0.004203	97.9	70	130	0.838	20	
Uranium	0.030	0.0025	0.01250	0.01716	100	70	130	2.04	20	

Sample ID	1609507-004FMSLL		SampType: MSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	MKTF-42		Batch ID: 27613		RunNo: 37417					
Prep Date:	9/20/2016		Analysis Date: 9/22/2016		SeqNo: 1162927		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0050	0.02500	0.004203	98.9	70	130			
Uranium	0.030	0.0025	0.01250	0.01716	105	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#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	MB-27664		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 27664		RunNo: 37436					
Prep Date:	9/22/2016		Analysis Date: 9/23/2016		SeqNo: 1163804		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-27664		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 27664		RunNo: 37436					
Prep Date:	9/22/2016		Analysis Date: 9/23/2016		SeqNo: 1163806		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	80	120			

Sample ID	1609507-001FMS		SampType: MS		TestCode: EPA Method 245.1: Mercury					
Client ID:	MKTF-44		Batch ID: 27664		RunNo: 37436					
Prep Date:	9/22/2016		Analysis Date: 9/23/2016		SeqNo: 1163810		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0060	0.00020	0.005000	.00009952	118	75	125			

Sample ID	1609507-001FMSD		SampType:	MSD		TestCode:	EPA Method 245.1: Mercury				
Client ID:	MKTF-44		Batch ID:	27664		RunNo:	37436				
Prep Date:	9/22/2016		Analysis Date:	9/23/2016		SeqNo:	1163811		Units:		mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0059	0.00020	0.005000	.00009952	116	75	125	1.18	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#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	MB		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions			
Client ID:	PBW		Batch ID:	R37147		RunNo:	37147			
Prep Date:			Analysis Date:	9/12/2016		SeqNo:	1152031	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS		SampType:	LCS		TestCode:	EPA Method 300.0: Anions			
Client ID:	LCSW		Batch ID:	R37147		RunNo:	37147			
Prep Date:			Analysis Date:	9/12/2016		SeqNo:	1152032	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.7	0.50	5.000	0	94.6	90	110			
Bromide	2.4	0.10	2.500	0	96.0	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.8	90	110			
Sulfate	9.8	0.50	10.00	0	97.6	90	110			

Sample ID	1609507-002EMS		SampType:	MS		TestCode:	EPA Method 300.0: Anions			
Client ID:	MKTF-25		Batch ID:	R37147		RunNo:	37147			
Prep Date:			Analysis Date:	9/12/2016		SeqNo:	1152050	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0.07290	84.4	74.5	121			
Bromide	2.6	0.10	2.500	0.8934	69.5	74.6	115			S

Sample ID	1609507-002EMSD		SampType:	MSD		TestCode:	EPA Method 300.0: Anions			
Client ID:	MKTF-25		Batch ID:	R37147		RunNo:	37147			
Prep Date:			Analysis Date:	9/12/2016		SeqNo:	1152051	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0.07290	84.7	74.5	121	0.303	20	
Bromide	2.6	0.10	2.500	0.8934	69.8	74.6	115	0.330	20	S

Sample ID	MB		SampType:	mblk		TestCode:	EPA Method 300.0: Anions			
Client ID:	PBW		Batch ID:	A37294		RunNo:	37294			
Prep Date:			Analysis Date:	9/17/2016		SeqNo:	1157982	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Qualifiers:

* 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#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID LCS	SampType: lcs			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: A37294			RunNo: 37294						
Prep Date:	Analysis Date: 9/17/2016			SeqNo: 1157983		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	101	90	110			

Sample ID MB	SampType: mblk			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: A37469			RunNo: 37469						
Prep Date:	Analysis Date: 9/23/2016			SeqNo: 1165133		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID LCS	SampType: lcs			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: A37469			RunNo: 37469						
Prep Date:	Analysis Date: 9/23/2016			SeqNo: 1165134		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.8	90	110			
Sulfate	9.7	0.50	10.00	0	96.7	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R37561			RunNo: 37561						
Prep Date:	Analysis Date: 9/28/2016			SeqNo: 1168729		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: R37561			RunNo: 37561						
Prep Date:	Analysis Date: 9/28/2016			SeqNo: 1168730		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	98.6	90	110			

Sample ID MB	SampType: mblk			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R37589			RunNo: 37589						
Prep Date:	Analysis Date: 9/29/2016			SeqNo: 1169949		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	0.082	0.50								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#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	LCSb		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R37589		RunNo: 37589					
Prep Date:			Analysis Date: 9/29/2016		SeqNo: 1169952		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	91.4	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#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	MB-27623		SampType: MBLK		TestCode: EPA Method 8011/504.1: EDB					
Client ID:	PBW		Batch ID: 27623		RunNo: 37388					
Prep Date:	9/21/2016		Analysis Date: 9/21/2016		SeqNo: 1162067		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-27623			SampType:	LCS		TestCode:	EPA Method 8011/504.1: EDB			
Client ID:	LCSW			Batch ID:	27623		RunNo:	37388			
Prep Date:	9/21/2016			Analysis Date:	9/21/2016		SeqNo:	1162073		Units:	µg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
1,2-Dibromoethane	0.11	0.010	0.1000	0	114	70	130				

Sample ID	LCSD-27623		SampType: LCSD		TestCode: EPA Method 8011/504.1: EDB					
Client ID:	LCSS02		Batch ID: 27623		RunNo: 37388					
Prep Date:	9/21/2016		Analysis Date: 9/21/2016		SeqNo: 1162075		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.12	0.010	0.1000	0	119	70	130	4.13	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#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	LCS-27435		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	LCSW		Batch ID: 27435		RunNo: 37115					
Prep Date:	9/12/2016		Analysis Date: 9/12/2016		SeqNo: 1151345		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.6	1.0	5.000	0	111	63.2	155			
Surr: DNOP	0.59		0.5000		119	77.1	144			

Sample ID	MB-27435		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 27435		RunNo: 37115					
Prep Date:	9/12/2016		Analysis Date: 9/12/2016		SeqNo: 1151346		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.3		1.000		127	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#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R37165			RunNo: 37165					
Prep Date:		Analysis Date: 9/13/2016			SeqNo: 1152880		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.1	70	130			
Toluene	18	1.0	20.00	0	92.2	70	130			
Chlorobenzene	17	1.0	20.00	0	86.5	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.1	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.0	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		99.9	70	130			
Surr: Toluene-d8	9.6		10.00		95.5	70	130			

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R37165			RunNo: 37165					
Prep Date:		Analysis Date: 9/13/2016			SeqNo: 1152881		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	0.10								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	0.10								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	0.10								
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	0.10								
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#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R37165			RunNo: 37165					
Prep Date:		Analysis Date: 9/13/2016			SeqNo: 1152881	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	0.51	0.10								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R37165			RunNo: 37165						
Prep Date:	Analysis Date: 9/13/2016			SeqNo: 1152881		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.7	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.8		10.00		97.6	70	130			

Sample ID 1609507-001ams	SampType: MS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: MKTF-44	Batch ID: R37165			RunNo: 37165						
Prep Date:	Analysis Date: 9/13/2016			SeqNo: 1152896		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.6	70	130			
Toluene	18	1.0	20.00	0	91.1	70	130			
Chlorobenzene	18	1.0	20.00	0	87.8	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	95.7	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	91.7	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	9.5		10.00		95.1	70	130			

Sample ID 1609507-001amsd	SampType: MSD			TestCode: EPA Method 8260B: VOLATILES						
Client ID: MKTF-44	Batch ID: R37165			RunNo: 37165						
Prep Date:	Analysis Date: 9/13/2016			SeqNo: 1152897		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.8	70	130	1.85	20	
Toluene	17	1.0	20.00	0	85.8	70	130	6.01	20	
Chlorobenzene	17	1.0	20.00	0	84.3	70	130	4.02	20	
1,1-Dichloroethene	19	1.0	20.00	0	93.7	70	130	2.11	20	
Trichloroethene (TCE)	17	1.0	20.00	0	87.2	70	130	4.98	20	
Surr: 1,2-Dichloroethane-d4	11		10.00		108	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130	0	0	
Surr: Dibromofluoromethane	10		10.00		103	70	130	0	0	
Surr: Toluene-d8	9.5		10.00		94.9	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#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	mb-27489	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	27489	RunNo:	37269					
Prep Date:	9/14/2016	Analysis Date:	9/16/2016	SeqNo:	1157087	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	5.6	10								J
Diethyl phthalate	ND	10								
Dimethyl phthalate	3.0	10								J
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	7.9	20								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#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	mb-27489	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	27489	RunNo:	37269					
Prep Date:	9/14/2016	Analysis Date:	9/16/2016	SeqNo:	1157087	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	2.9	10								J
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	2.5	10								J
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	96		200.0		48.1	15	123			
Surr: Phenol-d5	82		200.0		40.8	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		69.0	18.4	134			
Surr: Nitrobenzene-d5	65		100.0		64.9	28.8	134			
Surr: 2-Fluorobiphenyl	57		100.0		57.0	35.9	125			
Surr: 4-Terphenyl-d14	58		100.0		58.2	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#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	Ics-27489		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 27489		RunNo: 37269					
Prep Date:	9/14/2016		Analysis Date: 9/16/2016		SeqNo: 1157090		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	71.6	35	113			
4-Chloro-3-methylphenol	140	10	200.0	0	71.2	40.7	114			
2-Chlorophenol	140	10	200.0	0	70.9	37.6	113			
1,4-Dichlorobenzene	56	10	100.0	0	56.2	37.7	106			
2,4-Dinitrotoluene	67	10	100.0	0	67.2	37	91			
N-Nitrosodi-n-propylamine	73	10	100.0	0	72.5	45.4	105			
4-Nitrophenol	110	10	200.0	0	52.9	33.4	104			
Pentachlorophenol	120	20	200.0	0	58.0	29.5	94.9			
Phenol	110	10	200.0	0	57.3	30.6	119			
Pyrene	62	10	100.0	0	62.4	26.2	120			
1,2,4-Trichlorobenzene	62	10	100.0	0	62.2	39.9	125			
Surr: 2-Fluorophenol	120		200.0		60.1	15	123			
Surr: Phenol-d5	130		200.0		63.9	4.13	124			
Surr: 2,4,6-Tribromophenol	150		200.0		74.4	18.4	134			
Surr: Nitrobenzene-d5	70		100.0		69.6	28.8	134			
Surr: 2-Fluorobiphenyl	67		100.0		67.2	35.9	125			
Surr: 4-Terphenyl-d14	48		100.0		48.4	15	146			

Sample ID	1609507-002dms		SampType: MS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	MKTF-25		Batch ID: 27489		RunNo: 37269					
Prep Date:	9/14/2016		Analysis Date: 9/16/2016		SeqNo: 1157094		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	48	10	100.0	0	47.7	27.6	123			
4-Chloro-3-methylphenol	57	10	200.0	0	28.5	29.3	126			S
2-Chlorophenol	63	10	200.0	0	31.4	15	133			
1,4-Dichlorobenzene	34	10	100.0	0	34.0	17.6	127			
2,4-Dinitrotoluene	54	10	100.0	0	54.1	38.9	98.5			
N-Nitrosodi-n-propylamine	57	10	100.0	0	57.1	25.9	131			
4-Nitrophenol	40	10	200.0	0	20.0	15	102			
Pentachlorophenol	74	20	200.0	0	37.1	15	120			
Phenol	34	10	200.0	11.68	11.2	15	100			S
Pyrene	47	10	100.0	0	47.1	22.8	126			
1,2,4-Trichlorobenzene	39	10	100.0	0	38.6	15	143			
Surr: 2-Fluorophenol	35		200.0		17.4	15	123			
Surr: Phenol-d5	28		200.0		13.8	4.13	124			
Surr: 2,4,6-Tribromophenol	86		200.0		43.1	18.4	134			
Surr: Nitrobenzene-d5	52		100.0		52.5	28.8	134			
Surr: 2-Fluorobiphenyl	41		100.0		41.2	35.9	125			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	1609507-002dms	SampType:	MS	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	MKTF-25	Batch ID:	27489	RunNo:	37269					
Prep Date:	9/14/2016	Analysis Date:	9/16/2016	SeqNo:	1157094	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	33		100.0		33.1	15	146			

Sample ID	1609507-002DMSD	SampType:	MSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	MKTF-25	Batch ID:	27489	RunNo:	37269					
Prep Date:	9/14/2016	Analysis Date:	9/16/2016	SeqNo:	1157095	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	46	10	100.0	0	46.5	27.6	123	2.67	31.3	
4-Chloro-3-methylphenol	55	10	200.0	0	27.3	29.3	126	4.19	29	S
2-Chlorophenol	56	10	200.0	0	27.8	15	133	12.0	28.4	
1,4-Dichlorobenzene	29	10	100.0	0	29.2	17.6	127	15.2	28.2	
2,4-Dinitrotoluene	51	10	100.0	0	51.4	38.9	98.5	5.12	22.9	
N-Nitrosodi-n-propylamine	49	10	100.0	0	48.8	25.9	131	15.7	28.8	
4-Nitrophenol	43	10	200.0	0	21.3	15	102	6.54	41.5	
Pentachlorophenol	66	20	200.0	0	33.1	15	120	11.5	45.1	
Phenol	42	10	200.0	11.68	15.3	15	100	21.6	33.9	
Pyrene	46	10	100.0	0	46.4	22.8	126	1.41	33.6	
1,2,4-Trichlorobenzene	34	10	100.0	0	34.4	15	143	11.4	28.2	
Surr: 2-Fluorophenol	36		200.0		17.9	15	123	0	0	
Surr: Phenol-d5	34		200.0		17.2	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	75		200.0		37.6	18.4	134	0	0	
Surr: Nitrobenzene-d5	48		100.0		47.7	28.8	134	0	0	
Surr: 2-Fluorobiphenyl	41		100.0		41.1	35.9	125	0	0	
Surr: 4-Terphenyl-d14	51		100.0		50.8	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
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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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609507

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	2.5ug gro lcs		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: G37165		RunNo: 37165					
Prep Date:			Analysis Date: 9/13/2016		SeqNo: 1152730		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	103	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: G37165			RunNo: 37165					
Prep Date:		Analysis Date: 9/13/2016			SeqNo: 1152731		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	10		10.00		99.8	70	130			

Sample ID	1609507-001AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	MKTF-44		Batch ID: G37165		RunNo: 37165					
Prep Date:			Analysis Date: 9/13/2016		SeqNo: 1152733		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0.02320	95.1	53.8	128			
Surr: BFB	9.8		10.00		98.2	70	130			

Sample ID	1609507-001AMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	MKTF-44		Batch ID: G37165		RunNo: 37165					
Prep Date:			Analysis Date: 9/13/2016		SeqNo: 1152734		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	0.02320	91.3	53.8	128	3.88	20	
Surr: BFB	10		10.00		99.7	70	130	0	0	

Qualifiers:

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

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1609507

RcptNo: 1

Received by/date:

Logged By: Ashley Gallegos

9/10/2016 9:00:00 AM

Completed By: Ashley Gallegos

9/12/2016 11:14:11 AM

Reviewed By:

Chain of Custody

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

Log In

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

of preserved bottles checked for pH: 24
(≤ or >12 unless noted)
Adjusted? NO
Checked by: AS

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.0	Good	Yes			

