

GW-028

**ANNUAL GW
MONITORING
REPORT (3 of 6)**

2014

Client: Navajo Refining Company
WorkOrder: HS14040801
Project: SA Artesia Refinery Sitewide GW

QC BATCH REPORT

Batch ID: R232353		Instrument: VOA1		Method: SW8260					
MSD		Sample ID: HS14040801-17MSD		Units: ug/L		Analysis Date: 22-Apr-2014 15:08			
Client ID: MW-109-0414		Run ID: VOA1_232353		SeqNo: 2804224		PrepDate:		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	525.9	25	250	311.9	85.6	73 - 121	499.7	5.12	20
Surr: 1,2-Dichloroethane-d4	247.4	25	250	0	99.0	70 - 125	248.8	0.571	20
Surr: 4-Bromofluorobenzene	251.6	25	250	0	101	72 - 125	254.5	1.14	20
Surr: Dibromofluoromethane	265	25	250	0	106	71 - 125	245.4	7.69	20
Surr: Toluene-d8	245.1	25	250	0	98.0	75 - 125	248.8	1.5	20
The following samples were analyzed in this batch: HS14040801-17									

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040801
 Project: SA Artesia Refinery Sitewide GW

QC BATCH REPORT

Batch ID: R232686		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140425	Units: ug/L		Analysis Date: 25-Apr-2014 15:06					
Client ID:	Run ID: VOA6_232686	SeqNo: 2812410		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	U	5.0							
1,1,2,2-Tetrachloroethane	U	5.0							
1,1,2-Trichloroethane	U	5.0							
1,1-Dichloroethane	U	5.0							
1,1-Dichloroethene	U	5.0							
1,2,4-Trimethylbenzene	U	5.0							
1,2-Dibromoethane	U	5.0							
1,2-Dichloroethane	U	5.0							
1,2-Dichloropropane	U	5.0							
1,3,5-Trimethylbenzene	U	5.0							
2-Butanone	U	10							
2-Hexanone	U	10							
4-Isopropyltoluene	U	5.0							
4-Methyl-2-pentanone	U	10							
Acetone	U	10							
Benzene	U	5.0							
Bromodichloromethane	U	5.0							
Bromoform	U	5.0							
Bromomethane	U	5.0							
Carbon disulfide	U	10							
Carbon tetrachloride	U	5.0							
Chlorobenzene	U	5.0							
Chloroethane	U	5.0							
Chloroform	U	5.0							
Chloromethane	U	5.0							
cis-1,2-Dichloroethene	U	5.0							
cis-1,3-Dichloropropene	U	5.0							
Dibromochloromethane	U	5.0							
Ethylbenzene	U	5.0							
Isopropylbenzene	U	5.0							
m,p-Xylene	U	10							
Methyl tert-butyl ether	U	5.0							
Methylene chloride	U	10							
Naphthalene	U	5.0							

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040801
 Project: SA Artesia Refinery Sitewide GW

QC BATCH REPORT

Batch ID: R232686		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140425	Units: ug/L		Analysis Date: 25-Apr-2014 15:06					
Client ID:	Run ID: VOA6_232686	SeqNo: 2812410		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
n-Butylbenzene	U	5.0							
n-Propylbenzene	U	5.0							
o-Xylene	U	5.0							
sec-Butylbenzene	U	5.0							
Styrene	U	5.0							
Tetrachloroethene	U	5.0							
Toluene	U	5.0							
trans-1,2-Dichloroethene	U	5.0							
trans-1,3-Dichloropropene	U	5.0							
Trichloroethene	U	5.0							
Vinyl chloride	U	2.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	53.18	5.0	50	0	106	70 - 125			
Surr: 4-Bromofluorobenzene	49.33	5.0	50	0	98.7	72 - 125			
Surr: Dibromofluoromethane	51.78	5.0	50	0	104	71 - 125			
Surr: Toluene-d8	48.69	5.0	50	0	97.4	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040801
 Project: SA Artesia Refinery Sitewide GW

QC BATCH REPORT

Batch ID: R232686		Instrument: VOA6		Method: SW8260	
LCS		Sample ID: VLCSW-140425	Units: ug/L	Analysis Date: 25-Apr-2014 14:18	
Client ID:		Run ID: VOA6_232686	SeqNo: 2812409	PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
1,1,1-Trichloroethane	50.2	5.0	50	0 100	80 - 120
1,1,2,2-Tetrachloroethane	48.91	5.0	50	0 97.8	72 - 120
1,1,2-Trichloroethane	47.97	5.0	50	0 95.9	80 - 120
1,1-Dichloroethane	48.43	5.0	50	0 96.9	76 - 120
1,1-Dichloroethene	51.48	5.0	50	0 103	73 - 124
1,2,4-Trimethylbenzene	47.78	5.0	50	0 95.6	68 - 123
1,2-Dibromoethane	49.81	5.0	50	0 99.6	80 - 120
1,2-Dichloroethane	48.56	5.0	50	0 97.1	78 - 120
1,2-Dichloropropane	48.3	5.0	50	0 96.6	80 - 120
1,3,5-Trimethylbenzene	48.37	5.0	50	0 96.7	80 - 120
2-Butanone	103.3	10	100	0 103	58 - 132
2-Hexanone	103.5	10	100	0 103	61 - 130
4-Isopropyltoluene	48.53	5.0	50	0 97.1	79 - 120
4-Methyl-2-pentanone	102.4	10	100	0 102	65 - 127
Acetone	105.6	10	100	0 106	59 - 137
Benzene	46.54	5.0	50	0 93.1	73 - 121
Bromodichloromethane	50.08	5.0	50	0 100	75 - 125
Bromoform	50.47	5.0	50	0 101	70 - 130
Bromomethane	44.53	5.0	50	0 89.1	60 - 145
Carbon disulfide	100.5	10	100	0 101	68 - 141
Carbon tetrachloride	47.92	5.0	50	0 95.8	75 - 125
Chlorobenzene	47.08	5.0	50	0 94.2	80 - 120
Chloroethane	48.59	5.0	50	0 97.2	70 - 130
Chloroform	48.72	5.0	50	0 97.4	70 - 130
Chloromethane	50.64	5.0	50	0 101	67 - 123
cis-1,2-Dichloroethene	48.66	5.0	50	0 97.3	78 - 120
cis-1,3-Dichloropropene	51.57	5.0	50	0 103	80 - 120
Dibromochloromethane	49.66	5.0	50	0 99.3	80 - 120
Ethylbenzene	48.18	5.0	50	0 96.4	80 - 120
Isopropylbenzene	48.32	5.0	50	0 96.6	75 - 130
m,p-Xylene	95.63	10	100	0 95.6	78 - 121
Methyl tert-butyl ether	51.33	5.0	50	0 103	70 - 125
Methylene chloride	47.21	10	50	0 94.4	65 - 133
Naphthalene	53.08	5.0	50	0 106	65 - 135

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040801
 Project: SA Artesia Refinery Sitewide GW

QC BATCH REPORT

Batch ID: R232686		Instrument: VOA6		Method: SW8260	
LCS		Sample ID: VLCSW-140425		Units: ug/L	
Client ID:		Run ID: VOA6_232686		SeqNo: 2812409	
Analyte		Result		PQL	
		SPK Val		SPK Ref Value %REC	
				Control Limit	
				RPD Ref Value %RPD	
				RPD Limit Qual	
n-Butylbenzene		52.26		5.0 50	
n-Propylbenzene		48.75		5.0 50	
o-Xylene		47.41		5.0 50	
sec-Butylbenzene		48.57		5.0 50	
Styrene		49.26		5.0 50	
Tetrachloroethene		47.41		5.0 50	
Toluene		46.71		5.0 50	
trans-1,2-Dichloroethene		48.68		5.0 50	
trans-1,3-Dichloropropene		51.62		5.0 50	
Trichloroethene		49.12		5.0 50	
Vinyl chloride		49.2		2.0 50	
Xylenes, Total		143		15 150	
Surr: 1,2-Dichloroethane-d4		51.87		5.0 50	
Surr: 4-Bromofluorobenzene		50.48		5.0 50	
Surr: Dibromofluoromethane		51.3		5.0 50	
Surr: Toluene-d8		50.15		5.0 50	

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QC BATCH REPORT

Batch ID: R232686		Instrument: VOA6		Method: SW8260						
MS	Sample ID: HS14040871-07MS	Units: ug/L			Analysis Date: 25-Apr-2014 18:04					
Client ID:	Run ID: VOA6_232686	SeqNo: 2812416			PrepDate:		DF: 5			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	244.9	25	250	0	97.9	80 - 120				
1,1,2,2-Tetrachloroethane	230.2	25	250	0	92.1	72 - 120				
1,1,2-Trichloroethane	229.1	25	250	0	91.6	80 - 120				
1,1-Dichloroethane	239.1	25	250	0	95.6	76 - 120				
1,1-Dichloroethene	250	25	250	0	100	73 - 124				
1,2,4-Trimethylbenzene	272.9	25	250	33.72	95.7	68 - 123				
1,2-Dibromoethane	232.1	25	250	0	92.9	80 - 120				
1,2-Dichloroethane	231.5	25	250	0	92.6	78 - 120				
1,2-Dichloropropane	233.5	25	250	0	93.4	80 - 120				
1,3,5-Trimethylbenzene	225.5	25	250	0	90.2	80 - 120				
2-Butanone	504.1	50	500	0	101	58 - 132				
2-Hexanone	515.4	50	500	0	103	61 - 130				
4-Isopropyltoluene	227.9	25	250	7.163	88.3	79 - 120				
4-Methyl-2-pentanone	507.8	50	500	0	102	65 - 127				
Acetone	464.2	50	500	0	92.8	59 - 137				
Benzene	436.8	25	250	221.9	86.0	73 - 121				
Bromodichloromethane	236.6	25	250	0	94.7	75 - 125				
Bromoform	237	25	250	0	94.8	70 - 130				
Bromomethane	215.9	25	250	0	86.4	60 - 145				
Carbon disulfide	480.9	50	500	0	96.2	68 - 141				
Carbon tetrachloride	228.1	25	250	0	91.2	75 - 125				
Chlorobenzene	223.9	25	250	0	89.6	80 - 120				
Chloroethane	238.4	25	250	0	95.4	70 - 130				
Chloroform	236.6	25	250	0	94.6	70 - 130				
Chloromethane	240.4	25	250	0	96.2	67 - 123				
cis-1,2-Dichloroethene	240.7	25	250	0	96.3	78 - 120				
cis-1,3-Dichloropropene	237.2	25	250	0	94.9	80 - 120				
Dibromochloromethane	232.3	25	250	0	92.9	80 - 120				
Ethylbenzene	257.8	25	250	28.37	91.8	80 - 120				
Isopropylbenzene	237.7	25	250	8.382	91.7	75 - 130				
m,p-Xylene	463.2	50	500	4.083	91.8	78 - 121				
Methyl tert-butyl ether	254.5	25	250	0	102	70 - 125				
Methylene chloride	226.3	50	250	0	90.5	65 - 133				
Naphthalene	273.7	25	250	24.56	99.7	65 - 135				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040801
 Project: SA Artesia Refinery Sitewide GW

QC BATCH REPORT

Batch ID: R232686		Instrument: VOA6		Method: SW8260	
MS	Sample ID: HS14040871-07MS	Units: ug/L		Analysis Date: 25-Apr-2014 18:04	
Client ID:	Run ID: VOA6_232686	SeqNo: 2812416		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
n-Butylbenzene	242.8	25	250	11.87 92.4	77 - 120
n-Propylbenzene	244.7	25	250	14.18 92.2	78 - 120
o-Xylene	227.3	25	250	0 90.9	80 - 120
sec-Butylbenzene	227.3	25	250	7.87 87.8	78 - 120
Styrene	232.1	25	250	0 92.9	80 - 120
Tetrachloroethene	229.5	25	250	0 91.8	79 - 120
Toluene	221.2	25	250	0 88.5	80 - 120
trans-1,2-Dichloroethene	240.3	25	250	0 96.1	78 - 120
trans-1,3-Dichloropropene	244.5	25	250	0 97.8	80 - 120
Trichloroethene	235.2	25	250	0 94.1	80 - 120
Vinyl chloride	257.1	10	250	0 103	70 - 127
Xylenes, Total	690.6	75	750	4.083 91.5	80 - 120
Surr: 1,2-Dichloroethane-d4	261.5	25	250	0 105	70 - 125
Surr: 4-Bromofluorobenzene	253.1	25	250	0 101	72 - 125
Surr: Dibromofluoromethane	254.8	25	250	0 102	71 - 125
Surr: Toluene-d8	249.8	25	250	0 99.9	75 - 125

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040801
 Project: SA Artesia Refinery Sitewide GW

QC BATCH REPORT

Batch ID: R232686		Instrument: VOA6		Method: SW8260						
MSD		Sample ID: HS14040871-07MSD		Units: ug/L		Analysis Date: 25-Apr-2014 18:28				
Client ID:		Run ID: VOA6_232686		SeqNo: 2812417		PrepDate:		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	245.1	25	250	0	98.0	80 - 120	244.9	0.094	20	
1,1,2,2-Tetrachloroethane	238.8	25	250	0	95.5	72 - 120	230.2	3.69	20	
1,1,2-Trichloroethane	233.3	25	250	0	93.3	80 - 120	229.1	1.85	20	
1,1-Dichloroethane	240.9	25	250	0	96.4	76 - 120	239.1	0.782	20	
1,1-Dichloroethene	247.8	25	250	0	99.1	73 - 124	250	0.911	20	
1,2,4-Trimethylbenzene	266	25	250	33.72	92.9	68 - 123	272.9	2.57	20	
1,2-Dibromoethane	241.9	25	250	0	96.7	80 - 120	232.1	4.11	20	
1,2-Dichloroethane	234.1	25	250	0	93.6	78 - 120	231.5	1.12	20	
1,2-Dichloropropane	233.6	25	250	0	93.4	80 - 120	233.5	0.0471	20	
1,3,5-Trimethylbenzene	233.8	25	250	0	93.5	80 - 120	225.5	3.66	20	
2-Butanone	508.1	50	500	0	102	58 - 132	504.1	0.799	20	
2-Hexanone	523.9	50	500	0	105	61 - 130	515.4	1.64	20	
4-Isopropyltoluene	239.7	25	250	7.163	93.0	79 - 120	227.9	5.05	20	
4-Methyl-2-pentanone	517.1	50	500	0	103	65 - 127	507.8	1.81	20	
Acetone	463.6	50	500	0	92.7	59 - 137	464.2	0.126	20	
Benzene	443.7	25	250	221.9	88.7	73 - 121	436.8	1.56	20	
Bromodichloromethane	241.9	25	250	0	96.8	75 - 125	236.6	2.21	20	
Bromoform	246.2	25	250	0	98.5	70 - 130	237	3.81	20	
Bromomethane	218.4	25	250	0	87.4	60 - 145	215.9	1.15	20	
Carbon disulfide	484.6	50	500	0	96.9	68 - 141	480.9	0.756	20	
Carbon tetrachloride	234.5	25	250	0	93.8	75 - 125	228.1	2.77	20	
Chlorobenzene	231.3	25	250	0	92.5	80 - 120	223.9	3.23	20	
Chloroethane	236.2	25	250	0	94.5	76 - 121	238.4	0.917	20	
Chloroform	239.6	25	250	0	95.8	70 - 130	236.6	1.24	20	
Chloromethane	247.8	25	250	0	99.1	67 - 123	240.4	3.03	20	
cis-1,2-Dichloroethene	241	25	250	0	96.4	78 - 120	240.7	0.143	20	
cis-1,3-Dichloropropene	245.1	25	250	0	98.0	80 - 120	237.2	3.27	20	
Dibromochloromethane	242.7	25	250	0	97.1	80 - 120	232.3	4.35	20	
Ethylbenzene	264.3	25	250	28.37	94.4	80 - 120	257.8	2.48	20	
Isopropylbenzene	246.4	25	250	8.382	95.2	75 - 130	237.7	3.58	20	
m,p-Xylene	471.3	50	500	4.083	93.5	78 - 121	463.2	1.74	20	
Methyl tert-butyl ether	253.7	25	250	0	101	70 - 125	254.5	0.298	20	
Methylene chloride	231.1	50	250	0	92.4	65 - 133	226.3	2.12	20	
Naphthalene	268.3	25	250	24.56	97.5	65 - 135	273.7	1.99	20	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040801
 Project: SA Artesia Refinery Sitewide GW

QC BATCH REPORT

Batch ID: R232686		Instrument: VOA6		Method: SW8260	
MSD	Sample ID: HS14040871-07MSD	Units: ug/L		Analysis Date: 25-Apr-2014 18:28	
Client ID:	Run ID: VOA6_232686	SeqNo: 2812417		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
n-Butylbenzene	252.5	25	250	11.87 96.2	77 - 120 242.8 3.9 20
n-Propylbenzene	250.4	25	250	14.18 94.5	78 - 120 244.7 2.3 20
o-Xylene	236	25	250	0 94.4	80 - 120 227.3 3.73 20
sec-Butylbenzene	238.6	25	250	7.87 92.3	78 - 120 227.3 4.83 20
Styrene	238.6	25	250	0 95.4	80 - 120 232.1 2.74 20
Tetrachloroethene	238.1	25	250	0 95.2	79 - 120 229.5 3.69 20
Toluene	227.6	25	250	0 91.1	80 - 120 221.2 2.89 20
trans-1,2-Dichloroethene	241.4	25	250	0 96.5	78 - 120 240.3 0.451 20
trans-1,3-Dichloropropene	247.5	25	250	0 99.0	80 - 120 244.5 1.22 20
Trichloroethene	237.4	25	250	0 95.0	80 - 120 235.2 0.933 20
Vinyl chloride	256.7	10	250	0 103	70 - 127 257.1 0.152 20
Xylenes, Total	707.3	75	750	4.083 93.8	78 - 121 690.6 2.4 20
Surr: 1,2-Dichloroethane-d4	259.2	25	250	0 104	70 - 125 261.5 0.911 20
Surr: 4-Bromofluorobenzene	254.3	25	250	0 102	72 - 125 253.1 0.47 20
Surr: Dibromofluoromethane	255.1	25	250	0 102	71 - 125 254.8 0.112 20
Surr: Toluene-d8	252	25	250	0 101	75 - 125 249.8 0.888 20
The following samples were analyzed in this batch:					
HS14040801-03		HS14040801-05		HS14040801-07	
				HS14040801-09	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040801
 Project: SA Artesia Refinery Sitewide GW

QC BATCH REPORT

Batch ID: R232800		Instrument: VOA2		Method: SW8260					
MBLK	Sample ID: VBLKW-140428	Units: ug/L		Analysis Date: 28-Apr-2014 12:55					
Client ID:	Run ID: VOA2_232800	SeqNo: 2814620		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Methyl tert-butyl ether	U	5.0							
Surr: 1,2-Dichloroethane-d4	44.34	5.0	50	0	88.7	70 - 125			
Surr: 4-Bromofluorobenzene	45.96	5.0	50	0	91.9	72 - 125			
Surr: Dibromofluoromethane	46.92	5.0	50	0	93.8	71 - 125			
Surr: Toluene-d8	50.68	5.0	50	0	101	75 - 125			

LCS	Sample ID: VLCSW-140428	Units: ug/L		Analysis Date: 28-Apr-2014 11:46					
Client ID:	Run ID: VOA2_232800	SeqNo: 2814619		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Methyl tert-butyl ether	50.47	5.0	50	0	101	70 - 125			
Surr: 1,2-Dichloroethane-d4	46.61	5.0	50	0	93.2	70 - 125			
Surr: 4-Bromofluorobenzene	49.61	5.0	50	0	99.2	72 - 125			
Surr: Dibromofluoromethane	48.79	5.0	50	0	97.6	71 - 125			
Surr: Toluene-d8	48.49	5.0	50	0	97.0	75 - 125			

MS	Sample ID: HS14040905-13MS	Units: ug/L		Analysis Date: 28-Apr-2014 14:27					
Client ID:	Run ID: VOA2_232800	SeqNo: 2814624		PrepDate:		DF: 50			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Methyl tert-butyl ether	2277	250	2500	0	91.1	70 - 125			
Surr: 1,2-Dichloroethane-d4	2313	250	2500	0	92.5	70 - 125			
Surr: 4-Bromofluorobenzene	2459	250	2500	0	98.4	72 - 125			
Surr: Dibromofluoromethane	2275	250	2500	0	91.0	71 - 125			
Surr: Toluene-d8	2404	250	2500	0	96.2	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
WorkOrder: HS14040801
Project: SA Artesia Refinery Sitewide GW

QC BATCH REPORT

Batch ID: R232800		Instrument: VOA2		Method: SW8260	
MSD	Sample ID: HS14040905-13MSD	Units: ug/L		Analysis Date: 28-Apr-2014 14:50	
Client ID:	Run ID: VOA2_232800	SeqNo: 2814625		PrepDate:	DF: 50
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Methyl tert-butyl ether	2460	250	2500	0 98.4	70 - 125 2277 7.71 20
Surr: 1,2-Dichloroethane-d4	2522	250	2500	0 101	70 - 125 2313 8.64 20
Surr: 4-Bromofluorobenzene	2441	250	2500	0 97.7	72 - 125 2459 0.724 20
Surr: Dibromofluoromethane	2590	250	2500	0 104	71 - 125 2275 12.9 20
Surr: Toluene-d8	2397	250	2500	0 95.9	75 - 125 2404 0.292 20
The following samples were analyzed in this batch: HS14040801-09					

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040801
 Project: SA Artesia Refinery Sitewide GW

QC BATCH REPORT

Batch ID: R232464		Instrument: Balance1		Method: M2540C					
MBLK	Sample ID: WBLK-042214	Units: mg/L		Analysis Date: 22-Apr-2014 18:50					
Client ID:	Run ID: Balance1_232464	SeqNo: 2806891		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)		U	10.0						
LCS	Sample ID: WLCS-042214	Units: mg/L		Analysis Date: 22-Apr-2014 18:50					
Client ID:	Run ID: Balance1_232464	SeqNo: 2806892		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)		908	10.0	1000	0	90.8	85 - 115		
DUP	Sample ID: HS14040769-01DUP	Units: mg/L		Analysis Date: 22-Apr-2014 18:50					
Client ID:	Run ID: Balance1_232464	SeqNo: 2806878		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)		1930	10.0			1900	1.57	10	
DUP	Sample ID: HS14040736-02DUP	Units: mg/L		Analysis Date: 22-Apr-2014 18:50					
Client ID:	Run ID: Balance1_232464	SeqNo: 2806875		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)		646	10.0			664	2.75	10	
The following samples were analyzed in this batch:									
		HS14040801-01	HS14040801-03	HS14040801-05		HS14040801-07			
		HS14040801-09	HS14040801-11	HS14040801-13		HS14040801-15			
		HS14040801-17	HS14040801-19	HS14040801-21		HS14040801-23			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040801
 Project: SA Artesia Refinery Sitewide GW

QC BATCH REPORT

Batch ID: R232567		Instrument: Balance1		Method: M2540C	
MBLK	Sample ID: WBLK-042314	Units: mg/L		Analysis Date: 23-Apr-2014 18:50	
Client ID:	Run ID: Balance1_232567	SeqNo: 2809552		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)					
		U	10.0		
LCS	Sample ID: WLCS-042314	Units: mg/L		Analysis Date: 23-Apr-2014 18:50	
Client ID:	Run ID: Balance1_232567	SeqNo: 2809553		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)					
		1030	10.0	1000	0 103 85 - 115
DUP	Sample ID: HS14040954-27DUP	Units: mg/L		Analysis Date: 23-Apr-2014 18:50	
Client ID:	Run ID: Balance1_232567	SeqNo: 2809551		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)					
		2500	10.0		2400 4.08 10
DUP	Sample ID: HS14040750-01DUP	Units: mg/L		Analysis Date: 23-Apr-2014 18:50	
Client ID:	Run ID: Balance1_232567	SeqNo: 2809532		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)					
		842	10.0		884 4.87 10
The following samples were analyzed in this batch:					
		HS14040801-25 HS14040801-29			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040801
 Project: SA Artesia Refinery Sitewide GW

QC BATCH REPORT

Batch ID: R233075		Instrument: UV-2450		Method: SW9012	
MBLK	Sample ID: MBLK-233075	Units: mg/L		Analysis Date: 03-May-2014 10:00	
Client ID:	Run ID: UV-2450_233075	SeqNo: 2819905		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	U	0.0200			

LCS	Sample ID: LCS-233075	Units: mg/L		Analysis Date: 03-May-2014 10:00	
Client ID:	Run ID: UV-2450_233075	SeqNo: 2819906		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	0.175	0.0200	0.2	0 87.5	80 - 120

LCSD	Sample ID: LCSD-233075	Units: mg/L		Analysis Date: 03-May-2014 10:00	
Client ID:	Run ID: UV-2450_233075	SeqNo: 2819907		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	0.204	0.0200	0.2	0 102	80 - 120 0.175 15.3 20

MS	Sample ID: HS14040801-29MS	Units: mg/L		Analysis Date: 03-May-2014 10:00	
Client ID: EB-11-0414	Run ID: UV-2450_233075	SeqNo: 2819908		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	0.152	0.0200	0.2	0 76.0	80 - 120 S

The following samples were analyzed in this batch:					
HS14040801-13		HS14040801-15		HS14040801-21	
HS14040801-25		HS14040801-29			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040801
 Project: SA Artesia Refinery Sitewide GW

QC BATCH REPORT

Batch ID: R233109		Instrument: ICS2100		Method: E300	
MBLK	Sample ID: WBLKW2	Units: mg/L		Analysis Date: 01-May-2014 23:04	
Client ID:	Run ID: ICS2100_233109	SeqNo: 2821437		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	0.247	0.500			J
Fluoride	U	0.100			
Sulfate	U	0.500			

LCS	Sample ID: WLCSW2	Units: mg/L		Analysis Date: 01-May-2014 23:18	
Client ID:	Run ID: ICS2100_233109	SeqNo: 2821438		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	22	0.500	20	0 110	90 - 110
Fluoride	3.727	0.100	4	0 93.2	90 - 110
Sulfate	19.88	0.500	20	0 99.4	90 - 110

MS	Sample ID: HS14040801-29MS	Units: mg/L		Analysis Date: 02-May-2014 03:26	
Client ID: EB-11-0414	Run ID: ICS2100_233109	SeqNo: 2821455		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	52.74	2.50	50	0.353 105	80 - 120
Fluoride	8.769	0.500	10	0 87.7	80 - 120
Sulfate	52.22	2.50	50	1.137 102	80 - 120

MSD	Sample ID: HS14040801-29MSD	Units: mg/L		Analysis Date: 02-May-2014 03:40	
Client ID: EB-11-0414	Run ID: ICS2100_233109	SeqNo: 2821456		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	53.55	2.50	50	0.353 106	80 - 120	52.74	1.52	20
Fluoride	8.754	0.500	10	0 87.5	80 - 120	8.769	0.171	20
Sulfate	51.77	2.50	50	1.137 101	80 - 120	52.22	0.856	20

The following samples were analyzed in this batch:		HS14040801-01	HS14040801-03	HS14040801-05	HS14040801-07
		HS14040801-09	HS14040801-11	HS14040801-13	HS14040801-15
		HS14040801-17	HS14040801-19	HS14040801-21	HS14040801-23
		HS14040801-25	HS14040801-27	HS14040801-29	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040801
 Project: SA Artesia Refinery Sitewide GW

QC BATCH REPORT

Batch ID: R233155		Instrument: ICS2100		Method: E300	
MBLK	Sample ID: WBLKW1	Units: mg/L		Analysis Date: 05-May-2014 10:29	
Client ID:	Run ID: ICS2100_233155	SeqNo: 2822113		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	U	0.500

Sulfate	U	0.500

LCS	Sample ID: WLCSW1	Units: mg/L		Analysis Date: 05-May-2014 10:44	
Client ID:	Run ID: ICS2100_233155	SeqNo: 2822114		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	21.41	0.500	20	0	107	90 - 110

Sulfate	19.84	0.500	20	0	99.2	90 - 110

MS	Sample ID: HS14041210-06MS	Units: mg/L		Analysis Date: 05-May-2014 13:17	
Client ID:	Run ID: ICS2100_233155	SeqNo: 2822120		PrepDate:	DF: 500
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	6177	250	5000	524.3	113	80 - 120

Sulfate	11200	250	5000	6035	103	80 - 120

MSD	Sample ID: HS14041210-06MSD	Units: mg/L		Analysis Date: 05-May-2014 13:32	
Client ID:	Run ID: ICS2100_233155	SeqNo: 2822121		PrepDate:	DF: 500
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	6224	250	5000	524.3	114	80 - 120	6177	0.769	20

Sulfate	11240	250	5000	6035	104	80 - 120	11200	0.402	20

The following samples were analyzed in this batch:		HS14040801-01	HS14040801-03	HS14040801-09	HS14040801-11
		HS14040801-13	HS14040801-15	HS14040801-21	HS14040801-25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040801
 Project: SA Artesia Refinery Sitewide GW

QC BATCH REPORT

Batch ID: R233160		Instrument: ICS3K2		Method: E300	
MBLK	Sample ID: WBLKW1	Units: mg/L		Analysis Date: 03-May-2014 13:56	
Client ID:	Run ID: ICS3K2_233160	SeqNo: 2822432		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	U	0.200			
LCS	Sample ID: WLCSW1	Units: mg/L		Analysis Date: 03-May-2014 14:21	
Client ID:	Run ID: ICS3K2_233160	SeqNo: 2822433		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	7.328	0.200	8	0 91.6	90 - 110
MS	Sample ID: HS14040801-27MS	Units: mg/L		Analysis Date: 03-May-2014 21:40	
Client ID:	Run ID: ICS3K2_233160	SeqNo: 2822450		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	20.97	1.00	20	0 105	80 - 120
MSD	Sample ID: HS14040801-27MSD	Units: mg/L		Analysis Date: 03-May-2014 22:06	
Client ID:	Run ID: ICS3K2_233160	SeqNo: 2822451		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	21.06	1.00	20	0 105	80 - 120 20.97 0.428 20
The following samples were analyzed in this batch:					
HS14040801-01		HS14040801-03		HS14040801-05	
HS14040801-09		HS14040801-11		HS14040801-13	
HS14040801-17		HS14040801-19		HS14040801-21	
HS14040801-25		HS14040801-27		HS14040801-29	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: SA Artesia Refinery Sitewide GW
WorkOrder: HS14040801

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	AR - 2014	27-Mar-2015
California	2919	31-Jul-2015
Dept of Defense	L2231 Rev 3-20-2014	22-Dec-2015
Illinois	003403	09-May-2015
Kansas	E-10352 8/15/2013-2014	01-Oct-2014
Kentucky	KY 2014-2015	30-Apr-2015
Louisiana	03087 2014/2015	30-Jun-2015
North Carolina	624 - 2014	31-Dec-2014
North Dakota	R-193 2025	30-Apr-2015
Oklahoma	2014-128	31-Aug-2015
Texas	TX104704231-14-13	30-Apr-2015

Client: Navajo Refining Company
Project: SA Artesia Refinery Sitewide GW
Work Order: HS14040801

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS14040801-01	MW-126A-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-01	MW-126A-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-01	MW-126A-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-01	MW-126A-0414	Login	18-Apr-14 10:02	DRC	VW-3
HS14040801-01	MW-126A-0414	Login	18-Apr-14 10:02	DRC	BTEX A1
HS14040801-01	MW-126A-0414	Login	18-Apr-14 10:02	DRC	TPH C2
HS14040801-02	MW-126A-0414-D	Login	18-Apr-14 10:02	DRC	16B
HS14040801-03	MW-126B-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-03	MW-126B-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-03	MW-126B-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-03	MW-126B-0414	Login	18-Apr-14 10:02	DRC	VW-3
HS14040801-03	MW-126B-0414	Login	18-Apr-14 10:02	DRC	BTEX A1
HS14040801-03	MW-126B-0414	Login	18-Apr-14 10:02	DRC	TPH C2
HS14040801-04	MW-126B-0414-D	Login	18-Apr-14 10:02	DRC	16B
HS14040801-05	MW-127-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-05	MW-127-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-05	MW-127-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-05	MW-127-0414	Login	18-Apr-14 10:02	DRC	VW-3
HS14040801-05	MW-127-0414	Login	18-Apr-14 10:02	DRC	BTEX A1
HS14040801-05	MW-127-0414	Login	18-Apr-14 10:02	DRC	TPH C2
HS14040801-06	MW-127-0414-D	Login	18-Apr-14 10:02	DRC	16B
HS14040801-07	MW-131-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-07	MW-131-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-07	MW-131-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-07	MW-131-0414	Login	18-Apr-14 10:02	DRC	VW-3
HS14040801-07	MW-131-0414	Login	18-Apr-14 10:02	DRC	BTEX A1
HS14040801-07	MW-131-0414	Login	18-Apr-14 10:02	DRC	TPH C2
HS14040801-08	MW-131-0414-D	Login	18-Apr-14 10:02	DRC	16B
HS14040801-09	MW-111-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-09	MW-111-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-09	MW-111-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-09	MW-111-0414	Login	18-Apr-14 10:02	DRC	VW-3
HS14040801-09	MW-111-0414	Login	18-Apr-14 10:02	DRC	BTEX A1
HS14040801-09	MW-111-0414	Login	18-Apr-14 10:02	DRC	TPH C2
HS14040801-10	MW-111-0414-D	Login	18-Apr-14 10:02	DRC	16B
HS14040801-11	MW-130-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-11	MW-130-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-11	MW-130-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-11	MW-130-0414	Login	18-Apr-14 10:02	DRC	VW-3
HS14040801-11	MW-130-0414	Login	18-Apr-14 10:02	DRC	BTEX A1

Client: Navajo Refining Company
Project: SA Artesia Refinery Sitewide GW
Work Order: HS14040801

SAMPLE TRACKING

HS14040801-11	MW-130-0414	Login	18-Apr-14 10:02	DRC	TPH C2
HS14040801-12	MW-130-0414-D	Login	18-Apr-14 10:02	DRC	16B
HS14040801-13	MW-52-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-13	MW-52-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-13	MW-52-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-13	MW-52-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-13	MW-52-0414	Login	18-Apr-14 10:02	DRC	VW-3
HS14040801-13	MW-52-0414	Login	18-Apr-14 10:02	DRC	BTEX A1
HS14040801-13	MW-52-0414	Login	18-Apr-14 10:02	DRC	TPH C2
HS14040801-14	MW-52-0414-D	Login	18-Apr-14 10:02	DRC	16B
HS14040801-15	DUP-7-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-15	DUP-7-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-15	DUP-7-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-15	DUP-7-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-15	DUP-7-0414	Login	18-Apr-14 10:02	DRC	VW-3
HS14040801-15	DUP-7-0414	Login	18-Apr-14 10:02	DRC	BTEX A1
HS14040801-15	DUP-7-0414	Login	18-Apr-14 10:02	DRC	TPH C2
HS14040801-16	DUP-7-0414-D	Login	18-Apr-14 10:02	DRC	16B
HS14040801-17	MW-109-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-17	MW-109-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-17	MW-109-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-17	MW-109-0414	Login	18-Apr-14 10:02	DRC	VW-3
HS14040801-17	MW-109-0414	Login	18-Apr-14 10:02	DRC	BTEX A1
HS14040801-17	MW-109-0414	Login	18-Apr-14 10:02	DRC	TPH C2
HS14040801-18	MW-109-0414-D	Login	18-Apr-14 10:02	DRC	16B
HS14040801-19	MW-110-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-19	MW-110-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-19	MW-110-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-19	MW-110-0414	Login	18-Apr-14 10:02	DRC	VW-3
HS14040801-19	MW-110-0414	Login	18-Apr-14 10:02	DRC	BTEX A1
HS14040801-19	MW-110-0414	Login	18-Apr-14 10:02	DRC	TPH C2
HS14040801-20	MW-110-0414-D	Login	18-Apr-14 10:02	DRC	16B
HS14040801-21	KWB-13-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-21	KWB-13-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-21	KWB-13-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-21	KWB-13-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-21	KWB-13-0414	Login	18-Apr-14 10:02	DRC	VW-3
HS14040801-21	KWB-13-0414	Login	18-Apr-14 10:02	DRC	TPH C2
HS14040801-22	KWB-13-0414-D	Login	18-Apr-14 10:02	DRC	16B
HS14040801-23	EB-10-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-23	EB-10-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-23	EB-10-0414	Login	18-Apr-14 10:02	DRC	16B

Client: Navajo Refining Company
Project: SA Artesia Refinery Sitewide GW
Work Order: HS14040801

SAMPLE TRACKING

HS14040801-23	EB-10-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-23	EB-10-0414	Login	18-Apr-14 10:02	DRC	VW-3
HS14040801-23	EB-10-0414	Login	18-Apr-14 10:02	DRC	BTEX A1
HS14040801-23	EB-10-0414	Login	18-Apr-14 10:02	DRC	TPH C23
HS14040801-24	EB-10-0414-D	Login	18-Apr-14 10:02	DRC	16B
HS14040801-25	KWB-11B-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-25	KWB-11B-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-25	KWB-11B-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-25	KWB-11B-0414	Login	18-Apr-14 10:02	DRC	VW-3
HS14040801-25	KWB-11B-0414	Login	18-Apr-14 10:02	DRC	BTEX A1
HS14040801-25	KWB-11B-0414	Login	18-Apr-14 10:02	DRC	TPH C2
HS14040801-26	KWB-11B-0414-D	Login	18-Apr-14 10:02	DRC	16B
HS14040801-27	KWB-7-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-27	KWB-7-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-27	KWB-7-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-27	KWB-7-0414	Login	18-Apr-14 10:02	DRC	VW-3
HS14040801-27	KWB-7-0414	Login	18-Apr-14 10:02	DRC	TPH C2
HS14040801-28	KWB-7-0414-D	Login	18-Apr-14 10:02	DRC	16B
HS14040801-29	EB-11-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-29	EB-11-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-29	EB-11-0414	Login	18-Apr-14 10:02	DRC	16B
HS14040801-29	EB-11-0414	Login	18-Apr-14 10:02	DRC	VW-3
HS14040801-29	EB-11-0414	Login	18-Apr-14 10:02	DRC	BTEX A1
HS14040801-29	EB-11-0414	Login	18-Apr-14 10:02	DRC	TPH C2
HS14040801-30	EB-11-0414-D	Login	18-Apr-14 10:02	DRC	16B
HS14040801-31	EBlank 032814-11	Login	18-Apr-14 10:02	DRC	VW-3

Sample Receipt Checklist

Client Name: Navajo Refining
Work Order: HS14040801

Date/Time Received: **17-Apr-2014 09:30**
Received by: **ECD**

Checklist completed by: Dana.Capps 18-Apr-2014
eSignature Date
Reviewed by: Sonia West 23-Apr-2014
eSignature Date

Matrices: **Water**Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	

Temperature(s)/Thermometer(s):

0.3/0.3 0.6/0.6 0.4/0.6 2.1/2.1 2.4/2.4 C/U IR1

Cooler(s)/Kit(s):

5930 5924 2751 5925 3051

Date/Time sample(s) sent to storage:

04/18/2014

Water - VOA vials have zero headspace?

Yes ☒ No ☐ No VOA vials submitted ☐

Water - pH acceptable upon receipt?

Yes ☒ No ☐ N/A ☐

pH adjusted?

Yes ☐ No ☒ N/A ☐

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By: 0

Regarding:

Comments:

Corrective Action:



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+1 801 266 7700

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Customer Information		Project Information		Parameter/Method Request for Anal	
Purchase Order	473468 138604	Project Name	SA- Artesia Refinery-NCL SA GW	A	VOC (8260) Select
Work Order		Project Number		B	GRO (8015M)
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	DRO (8015M)
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se
Address	PO Box 159	Address	PO Box 159	E	Total Metals (6020/7470) Hg, Ni, V
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	F	Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TI
Phone	(575) 748-6733	Phone	(575) 748-6733	G	Cyanide (9014)
Fax	(575) 746-5421	Fax	(575) 746-5421	H	Nitrate/Nitrite as N (preserved)
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se
				J	Dis. Metals (6020/7470) Hg, Ni, V

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	mw-126A-0414	04/15/14	0815	ltw	2,3,8	6			X	X		X		X			
2	mw-126A-0414-D	04/15/14	0815	ltw	2,8	1									X		
3	mw-126B-0414	04/15/14	0845	ltw	2,3,8	6			X	X		X		X			
4	mw-126B-0414-D	04/15/14	0845	ltw	2,9	1									X		
5	mw-127-0414	04/15/14	0915	ltw	2,3,8	6			X	X		X		X			
6	mw-127-0414-D	04/15/14	0915	ltw	2,9	1									X		
7	mw-131-0414	04/15/14	1000	ltw	2,3,8	6			X	X		X		X			
8	mw-131-0414-D	04/15/14	1000	ltw	2,8										X		
9																	
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Jose Jerry Sordun		Fed X		☒ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour			
Relinquished by:		Date:	Time:	Received by (Laboratory):		Notes:	
Jose Jerry Sordun		04/16/14	1200	Eduardo 4-17-14-9:30		10 Work Days TAT. CC Pam Krueger/Arcadis	
Relinquished by:		Date:	Time:	Received by (Laboratory):		QC Package: (Check One Box Below)	
						☒ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SW845/CLP ☐ Other / EDD	
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		Cooler ID	
Preservative Key:		1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035					

HS14040801
Navajo Refining Company
SA Artesia Refinery NCL SA GW

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York, PA
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Customer Information		Project Information		ALS Project Manager: ALS Work Order #:															
Purchase Order		Project Name		Parameter/Method Request for Analysis															
173664	138604	SA- Artesia Refinery-EP SA GW		A VOC (8260) Select															
Work Order		Project Number		B GRO (8015M)															
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C DRO (8015M)															
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	D Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se															
Address	PO Box 159	Address	PO Box 159	E Total Metals (6020/7470) Hg, Ni, V															
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	F Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS															
Phone	(575) 748-6733	Phone	(575) 748-6733	G Cyanide (9014)															
Fax	(575) 746-5421	Fax	(575) 746-5421	H Nitrate/Nitrite as N (preserved)															
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	I Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se															
				J Dis. Metals (6020/7470) Hg, Ni, V															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	www-111-0414	04/15/14	1045	HW	2.8	6			X	X		X		X					
2	www-111-0414-D	04/15/14	1045	HW	2.8	1									X				
3	www-130-0414	04/15/14	1130	HW	2.8	6			X	X		X		X					
4	www-130-0414-D	04/15/14	1130	HW	2.8	1									X				
5	www-52-0414	04/15/14	1210	HW	2.8	7			X	X	X	X	X	X					
6	www-52-0414-D	04/15/14	1210	HW	2.8	7									X	X			
7	Dup-7-0414	04/15/14		HW	2.8	7			X	X	X	X	X	X					
8	Dup-7-0414-D	04/15/14		HW	2.8	1									X	X			
9																			
10																			
Sample(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:											
Sosa, Jerry		Fed X		☒ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour															
Relinquished by:		Date:		Time:		Received by:		Notes:											
Sosa, Jerry		04/16/14		1300		R Davis 4-17-14-9:30		10 Work Days TAT. CC Pam Krueger/Arcadis											
Logged by (Laboratory):		Date:		Time:		Checked by (Laboratory):		Cooler ID		Cooler Temp.		QC Package: (Check One Box Below)							
												☒ Level II Std QC ☐ TRRP CheckList ☐ Level III Std QC/Raw Data ☐ TRRP Level IV ☐ Level IV SW846/CLP ☐ Other / EDD							
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035																			

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Customer Information							Project Information							Parameter/Method Request for Analysis												
Purchase Order	439804-138604						Project Name	SA- Artesia Refinery-Sitewide GW						A	VOC (8260) Select											
Work Order							Project Number							B	GRO (8015M)											
Company Name	Navajo Refining Company						Bill To Company	Navajo Refining Company						C	DRO (8015M)											
Send Report To	Aaron Strange						Invoice Attn	Carrie Hernandez						D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se											
Address	PO Box 159						Address	PO Box 159						E	Total Metals (6020/7470) Hg, Ni, V											
City/State/Zip	Artesia, NM 88211						City/State/Zip	Artesia, NM 88211						F	Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS											
Phone	(575) 748-6733						Phone	(575) 748-6733						G	Cyanide (9014)											
Fax	(575) 748-5421						Fax	(575) 748-5421						H	Nitrate/Nitrite as N (preserved)											
e-Mail Address	robert.combs@navajo-refining.com						e-Mail Address	robert.combs@navajo-refining.com						I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se											
														J	Dis. Metals (6020/7470) Hg, Ni, V											
No.	Sample Description		Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold								
1	mw-109-0414		04/15/14	1305	ltw	2,3,8	6			X	X		X		X											
2	mw-109-0414-D		04/15/14	1305	ltw	2,8	1									X										
3	mw-110-0414		04/15/14	1340	ltw	2,3,8	6			X	X		X		X											
4	mw-110-0414-D		04/15/14	1340	ltw	2,8	1									X										
5	KWB-13-0414		04/15/14	1415	ltw	2,3,4,8	7			X	X	X	X	X	X											
6	KWB-13-0414-D		04/15/14	1415	ltw	2,8	1									X	X									
7	EB-10-0414		04/15/14	1600	ltw	2,3,4,8	7			X	X	X	X	X	X											
8	EB-10-0414-D		04/15/14	1600	ltw	2,8	1									X	X									
9																										
10																										
Sampler(s) Please Print & Sign								Shipment Method				Required Turnaround Time: (Check Box)				Results Due Date:										
Sosa Jerry Sosa Jerry								760 X				☒ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour														
Relinquished by: Sosa Jerry								Date: 04/16/14 Time: 1200				Received by: E. Davis				Date: 4-17-14 Time: 9:30										
Relinquished by:								Date:				Received by (Laboratory):				Notes: 10 Work Days TAT. CC Pam Krueger/Arcadis										
Logged by (Laboratory):								Date:				Checked by (Laboratory):				Cooler ID										
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035																☒ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SW846/CLP ☐ Other / EDD										

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Customer Information			Project Information			Parameter/Method Request for Analysis												
Purchase Order	139604	Project Name	SA- Artesia Refinery-Sitewide GW	A	VOC (8260) Select													
Work Order		Project Number		B	GRO (8015M)													
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	DRO (8015M)													
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se													
Address	PO Box 159	Address	PO Box 159	E	Total Metals (6020/7470) Hg, Ni, V													
				F	Anions (300) Cl, F, SO ₄ , Cations (Ca, Mg, K, Na) TDS													
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	Cyanide (9014)													
Phone	(575) 748-6733	Phone	(575) 748-6733	H	Nitrate/Nitrite as N (preserved)													
Fax	(575) 748-5421	Fax	(575) 748-5421	I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se													
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	J	Dis. Metals (6020/7470) Hg, Ni, V													
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold	
1	1LWB-11B-0414	04/16/14	0835	1LW	2,3,4,8				X	X	X	X	X	X				
2	1LWB-11B-0414-D	04/16/14	0835	1LW	2,8										X	X		
3	1LWB-7-0414	04/16/14	0935	1LW	2,3,4,8				X	X	X	X	X	X				
4	1LWB-7-0414-D	04/16/14	0935	1LW	2,8										X	X		
5	EB-11-0414	04/16/14	1030	1LW	2,3,4,8				X	X	X	X	X	X				
6	EB-11-0414-D	04/16/14	1030	1LW	2,8										X	X		
7																		
8																		
9																		
10																		

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
John Sosa Levy		861 X		☒ Std 10 WK Days ☐ 5 WK Days ☐ Other			
Relinquished by:	Date:	Time:	Received by:	Notes:			
John Sosa Levy	04/16/14	1300	John Sosa Levy	10 Work Days TAT. CC Pam Krueger/Arcadis			
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)	
						☒ Level II Std QC ☐ TRRP CheckList	
						☐ Level III Std QC/Raw Data ☐ TRRP Level IV	
						☐ Level IV SW/848/CLP	
						☐ Other / EDD	
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035							

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+1 304 356 3168
York, PA
+1 717 505 5280

Customer Information				Project Information				ALS Project Manager:												ALS Work Order #:			
Parameter/Method Request for Analysis																							
Purchase Order	138604	Project Name	SA- Artesia Refinery-EP SA GW	A	VOC (8260) Select																		
Work Order		Project Number		B	GRO (8015M)																		
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	DRO (8015M)																		
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se																		
Address	PO Box 159	Address	PO Box 159	E	Total Metals (6020/7470) Hg, Ni, V																		
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	F	Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS																		
Phone	(575) 748-8733	Phone	(575) 748-8733	G	Cyanide (9014)																		
Fax	(575) 746-5421	Fax	(575) 746-5421	H	Nitrate/Nitrite as N (preserved)																		
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se																		
				J	Dis. Metals (6020/7470) Hg, Ni, V																		
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold						
1	mw-126A-0414	04/15/14	0815	ltw	1,8	6	X	X															
2	mw-126B-0414	04/15/14	0845	ltw	1,8	6	X	X															
3	mw-127-0414	04/15/14	0915	ltw	1,8	6	X	X															
4	mw-131-0414	04/15/14	1000	ltw	1,8	6	X	X															
5	mw-111-0414	04/15/14	1045	ltw	1,8	6	X	X															
6	mw-130-0414	04/15/14	1130	ltw	1,8	6	X	X															
7	mw-52-0414	04/15/14	1210	ltw	1,8	6	X	X															
8	Dup-7-0414	04/15/14		ltw	1,8	6	X	X															
9	mw-109-0414	04/15/14	1305	ltw	1,8	6	X	X															
10	mw-110-0414	04/15/14	1340	ltw	1,8	6	X	X															
Sampler(s) Please Print & Sign				Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:													
Sose, Jerry Sose, Jerry				Fed-X		☒ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour																	
Relinquished by:		Date:	Time:	Received by:		Notes:																	
Sose, Jerry		04/16/14	1300	E. Davis		10 Work Days TAT. CC Pam Krueger/Arcadis																	
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID		Cooler Temp.		QC Package: (Check One Box Below)													
										☒ Level II Std QC ☐ TRRP CheckList ☐ Level III Std QC/Raw Data ☐ TRRP Level IV ☐ Level IV SW843/CLP ☐ Other / EDD													
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):																			
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035																							

- Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
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Chain of Custody Form

Page 6 of 6

COC ID: 93379

Houston, TX
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Salt Lake City, UT
+1 801 266 7700

South Charleston, WV
+1 304 356 3168

York, PA
+1 717 505 5280

Customer Information				Project Information				ALS Project Manager: ALS Work Order #:															
Parameter/Method Request for Analysis																							
Purchase Order	138604	Project Name	SA- Artesia Refinery-Sitewide GW	A	VOC (8260) Select																		
Work Order		Project Number		B	GRO (8015M)																		
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	DRO (8015M)																		
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se																		
Address	PO Box 159	Address	PO Box 159	E	Total Metals (6020/7470) Hg, Ni, V																		
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	F	Anions (300) Cl, F, SO ₄ , Cations (Ca, Mg, K, Na) TDS																		
Phone	(575) 748-6733	Phone	(575) 748-6733	G	Cyanide (9014)																		
Fax	(575) 746-5421	Fax	(575) 746-5421	H	Nitrate/Nitrite as N (preserved)																		
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se																		
				J	Dis. Metals (6020/7470) Hg, Ni, V																		

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	KWB-13-0414	04/15/14		HW	1.8	3	X										
2	EB-10-0414	04/15/14	1600	HW	1.8	6	X	X									
3	KWB-11B-0414	04/16/14	0835	HW	1.8	6	X	X									
4	KWB-7-0414	04/16/14	0935	HW	1.8	3	X										
5	EB-11-0414	04/16/14	1030	HW	1.8	6	X	X									
6	EB-11-032814-11	04/16/14	1300	HW	1.8	2	X										
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign				Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:			
Jose Jerry Sanfury				FedEx		☒ Std 10 W/K Days ☐ 5 W/K Days ☐ Other ☐ 2 W/K Days ☐ 24 Hour							
Relinquished by:		Date:	Time:	Received by:		Notes:							
Jose Jerry Sanfury		04/16/14	1300	E. J. Sanfury		10 Work Days TAT. CC Pam Krueger/Arcadis							
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID		Cooler Temp.		QC Package: (Check One Box Below)			
										☒ Level II Std QC ☐ TRRP CheckList			
										☐ Level III Std QC/Raw Data ☐ TRRP Level IV			
										☐ Level IV SW846/CLP			
										☐ Other / EDD			
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035													

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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TRK# 5797 1186 9796
 THU - 17 APR 10:30A
 PRIORITY OVERNIGHT
 AB SGRA
 TX-US 77099
 IAH

 ALS Environmental 10450 Stanciliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By:
	Date: 04/16/14 Time: 12:30 Name: [Signature] Company: [Signature]		

TRAK# 5797 1186 9800
THU - 17 APR 10:30A
PRIORITY OVERNIGHT
AB SGRA
77099
TX-US IAH

 ALS Environmental 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By:
	Date: 04/16/14	Time: 1300	EAH
	Name: [Signature]	Company: [Signature]	Date: 4-17-14

TRAK# 5797 1186 9833
THU - 17 APR 10:30A
PRIORITY OVERNIGHT
AB SGRA
77099
TX-US IAH

 ALS Environmental 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By:
	Date: 04/16/14	Time: 1300	EAH
	Name: [Signature]	Company: [Signature]	Date: 4-17-14

TRAK# 5797 1186 9822
THU - 17 APR 10:30A
PRIORITY OVERNIGHT
AB SGRA
77099
TX-US IAH

 ALS Environmental 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By:
	Date: 04/16/14	Time: 1300	EAH
	Name: [Signature]	Company: [Signature]	Date: 4-17-14

TRAK# 5797 1186 9811
THU - 17 APR 10:30A
PRIORITY OVERNIGHT
AB SGRA
77099
TX-US IAH

 ALS Environmental 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By:
	Date: 04/16/14	Time: 1300	EAH
	Name: [Signature]	Company: [Signature]	Date: 4-17-14



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

September 04, 2014

Aaron Strange
Navajo Refining Company
PO Box 1490
Artesia, NM 88211-1490

Work Order: **HS14040954**

Revision: **1**

Laboratory Results for: **SA Artesia Refinery - NCL**

Dear Aaron,

ALS Environmental received 38 sample(s) on Apr 22, 2014 for the analysis presented in the following report.

This is a REVISED REPORT. Please see the Case Narrative for discussion concerning this revision.

Regards,

A handwritten signature in cursive script that reads 'Bethany McDaniel'.

Generated By: Bethany.McDaniel
Bethany McDaniel
Project Manager

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
Work Order: HS14040954

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS14040954-01	NCL-31-0414	Water		17-Apr-2014 09:15	22-Apr-2014 08:50	☐
HS14040954-02	NCL-31-0414-D	Water		17-Apr-2014 09:15	22-Apr-2014 08:50	☐
HS14040954-03	MW-108-0414	Water		17-Apr-2014 09:50	22-Apr-2014 08:50	☐
HS14040954-04	MW-108-0414-D	Water		17-Apr-2014 09:50	22-Apr-2014 08:50	☐
HS14040954-05	NCL-44-0414	Water		17-Apr-2014 10:45	22-Apr-2014 08:50	☐
HS14040954-06	NCL-44-0414-D	Water		17-Apr-2014 10:45	22-Apr-2014 08:50	☐
HS14040954-07	NCL-33-0414	Water		17-Apr-2014 11:25	22-Apr-2014 08:50	☐
HS14040954-08	NCL-33-0414-D	Water		17-Apr-2014 11:25	22-Apr-2014 08:50	☐
HS14040954-09	MW-18-0414	Water		17-Apr-2014 12:05	22-Apr-2014 08:50	☐
HS14040954-10	MW-18-0414-D	Water		17-Apr-2014 12:05	22-Apr-2014 08:50	☐
HS14040954-11	MW-55-0414	Water		17-Apr-2014 12:45	22-Apr-2014 08:50	☐
HS14040954-12	MW-55-04174-D	Water		17-Apr-2014 12:45	22-Apr-2014 08:50	☐
HS14040954-13	Dup-08-0414	Water		17-Apr-2014 00:00	22-Apr-2014 08:50	☐
HS14040954-14	Dup-08-0414-D	Water		17-Apr-2014 00:00	22-Apr-2014 08:50	☐
HS14040954-15	MW-56-0414	Water		17-Apr-2014 13:15	22-Apr-2014 08:50	☐
HS14040954-16	MW-56-0414-D	Water		17-Apr-2014 13:15	22-Apr-2014 08:50	☐
HS14040954-17	MW-45-0414	Water		17-Apr-2014 14:00	22-Apr-2014 08:50	☐
HS14040954-18	MW-45-0414-D	Water		17-Apr-2014 14:00	22-Apr-2014 08:50	☐
HS14040954-19	NCL-49-0414	Water		17-Apr-2014 15:05	22-Apr-2014 08:50	☐
HS14040954-20	NCL-49-0414-D	Water		17-Apr-2014 15:05	22-Apr-2014 08:50	☐
HS14040954-21	MW-54A-0414	Water		17-Apr-2014 14:40	22-Apr-2014 08:50	☐
HS14040954-22	MW-54A-0414-D	Water		17-Apr-2014 14:40	22-Apr-2014 08:50	☐
HS14040954-23	EB-12-0414	Water		17-Apr-2014 16:00	22-Apr-2014 08:50	☐
HS14040954-24	EB-12-0414-D	Water		17-Apr-2014 16:00	22-Apr-2014 08:50	☐
HS14040954-25	UG-3R-0414	Water		17-Apr-2014 08:15	22-Apr-2014 08:50	☐
HS14040954-26	UG-3R-0414-D	Water		17-Apr-2014 08:15	22-Apr-2014 08:50	☐
HS14040954-27	Dup-9-0414	Water		17-Apr-2014 00:00	22-Apr-2014 08:50	☐

Revision:1

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
Work Order: HS14040954

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS14040954-28	Dup-9-0414-D	Water		17-Apr-2014 00:00	22-Apr-2014 08:50	☐
HS14040954-29	UG-1-0414	Water		18-Apr-2014 09:00	22-Apr-2014 08:50	☐
HS14040954-30	UG-1-0414-D	Water		18-Apr-2014 09:00	22-Apr-2014 08:50	☐
HS14040954-31	UG-2-0414	Water		18-Apr-2014 00:00	22-Apr-2014 08:50	☐
HS14040954-32	UG-2-0414-D	Water		18-Apr-2014 00:00	22-Apr-2014 08:50	☐
HS14040954-33	MW-53-0414	Water		18-Apr-2014 10:30	22-Apr-2014 08:50	☐
HS14040954-34	MW-53-0414-D	Water		18-Apr-2014 10:30	22-Apr-2014 08:50	☐
HS14040954-35	EB-13-0414	Water		18-Apr-2014 11:00	22-Apr-2014 08:50	☐
HS14040954-36	EB-13-0414-D	Water		18-Apr-2014 11:00	22-Apr-2014 08:50	☐
HS14040954-37	TB-032814-05	Water		18-Apr-2014 10:00	22-Apr-2014 08:50	☐
HS14040954-38	TB 032814-06	Water		17-Apr-2014 00:00	22-Apr-2014 08:50	☐

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
Work Order: HS14040954

CASE NARRATIVE

This report was revised on September 3, 2014 to report to the MDL per client request

Nitrate/Nitrite Method E300, Sample NCL-31-0414 (HS14040954-01): could not be analyzed at a lower dilution due to the high concentration of the target analyte.

Nitrate/Nitrite Method E300, Sample MW-108-0414 (HS14040954-03): could not be analyzed at a lower dilution due to the high concentration of the target analyte.

Nitrate/Nitrite Method E300, Sample NCL-44-0414 (HS14040954-05): could not be analyzed at a lower dilution due to the high concentration of the target analyte.

Nitrate/Nitrite Method E300, Sample NCL-33-0414 (HS14040954-07): could not be analyzed at a lower dilution due to the high concentration of the target analyte.

Nitrate/Nitrite Method E300, Sample MW-45-0414 (HS14040954-17): could not be analyzed at a lower dilution due to the high concentration of the target analyte.

Nitrate/Nitrite Method E300, Sample MW-54A-0414 (HS14040954-21): could not be analyzed at a lower dilution due to the high concentration of the target analyte.

Nitrate/Nitrite Method E300, Sample EB-12-0414 (HS14040954-23): could not be analyzed at a lower dilution due to the high concentration of the target analyte.

Batch 81476, Metals Method SW6020, Sample HS14040710-01: MS/MSD and DUP are for an unrelated sample.

Batch 81500, Mercury Method SW7470, Sample HS140401149-06 : MS/MSD is for an unrelated sample.

Batch 81590, Metals Method SW6020, Sample HS140401149-06 : MS/MSD and PDS are for an unrelated sample.

Batch 81595, Metals Method SW6020, Sample HS14041021-01: MS/MSD and PDS are for an unrelated sample.

Batch R2322862, Volatile Organics Method SW8260, Sample MW-108-0414(HS14040954-03): MS/MSD recoveries were above the control limits for Chloroethane. The associated LCS recoveries and MS/MSD RPD were within the control limits.

Batch R232994, Cyanide Method SW9012, Sample UG-3R-0414 (HS14040954-25): MS/MSD recoveries were outside the control limits for cyanide. the associated LCS/LCSD recoveries and RPD were within the control limits.

Batch R232994, Cyanide Method SW9012, Sample UG-3R-0414 (HS14040954-25): MS/MSD RPD was outside the control limits for cyanide. the associated LCS/LCSD recoveries and RPD were within the control limits.

Batch R232988, Volatile Organics: CCV %D was above the control limits for Iodomethane. the associated sample results are non Detect.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: NCL-31-0414
 Collection Date: 17-Apr-2014 09:15

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 13:38
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 13:38
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 13:38
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 13:38
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 13:38
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 13:38
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 13:38
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 13:38
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	29-Apr-2014 13:38
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 13:38
2-Butanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 13:38
2-Hexanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 13:38
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 13:38
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 13:38
Acetone	U		0.0020	0.010	mg/L	1	29-Apr-2014 13:38
Benzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 13:38
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	29-Apr-2014 13:38
Bromoform	0.00077	J	0.00050	0.0050	mg/L	1	29-Apr-2014 13:38
Bromomethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 13:38
Carbon disulfide	U		0.00090	0.010	mg/L	1	29-Apr-2014 13:38
Carbon tetrachloride	0.0094		0.00060	0.0050	mg/L	1	29-Apr-2014 13:38
Chlorobenzene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 13:38
Chloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 13:38
Chloroform	U		0.00060	0.0050	mg/L	1	29-Apr-2014 13:38
Chloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 13:38
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 13:38
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 13:38
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 13:38
Ethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 13:38
Isopropylbenzene	0.00055	J	0.00050	0.0050	mg/L	1	29-Apr-2014 13:38
m,p-Xylene	U		0.00060	0.010	mg/L	1	29-Apr-2014 13:38
Methyl tert-butyl ether	0.00060	J	0.00060	0.0050	mg/L	1	29-Apr-2014 13:38
Methylene chloride	U		0.0010	0.010	mg/L	1	29-Apr-2014 13:38
Naphthalene	0.0021	J	0.00070	0.0050	mg/L	1	29-Apr-2014 13:38
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	29-Apr-2014 13:38
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 13:38
o-Xylene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 13:38
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 13:38
Styrene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 13:38
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 13:38
Toluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 13:38
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 13:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: NCL-31-0414
 Collection Date: 17-Apr-2014 09:15

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 13:38
Trichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 13:38
Vinyl chloride	U		0.00040	0.0020	mg/L	1	29-Apr-2014 13:38
Xylenes, Total	U		0.0015	0.015	mg/L	1	29-Apr-2014 13:38
Surr: 1,2-Dichloroethane-d4	103			70-125	%REC	1	29-Apr-2014 13:38
Surr: 4-Bromofluorobenzene	99.4			72-125	%REC	1	29-Apr-2014 13:38
Surr: Dibromofluoromethane	103			71-125	%REC	1	29-Apr-2014 13:38
Surr: Toluene-d8	96.4			75-125	%REC	1	29-Apr-2014 13:38
ICP-MS METALS BY SW6020A		Method:SW6020				Prep:SW3010A / 05-May-2014 Analyst: SKS	
Arsenic	0.0110		0.00100	0.00500	mg/L	1	19-May-2014 18:20
Barium	0.0229		0.000900	0.00500	mg/L	1	19-May-2014 18:20
Calcium	267		0.670	5.00	mg/L	10	20-May-2014 13:35
Chromium	U		0.00100	0.00500	mg/L	1	19-May-2014 18:20
Iron	1.02		0.0500	0.200	mg/L	1	19-May-2014 18:20
Lead	0.00104	J	0.000700	0.00500	mg/L	1	19-May-2014 18:20
Manganese	1.83		0.0250	0.0500	mg/L	10	20-May-2014 13:35
Potassium	0.321		0.0500	0.200	mg/L	1	19-May-2014 18:20
Selenium	0.00110	J	0.00100	0.00500	mg/L	1	19-May-2014 18:20
Sodium	112		0.0500	0.200	mg/L	1	19-May-2014 18:20
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	2,300		5.00	10.0	mg/L	1	23-Apr-2014 18:50
ANIONS BY E300.0		Method:E300				Analyst: JKP	
Chloride	69.6		0.200	0.500	mg/L	1	04-May-2014 10:09
Fluoride	0.776		0.0500	0.100	mg/L	1	04-May-2014 10:09
Sulfate	1,030		10.0	25.0	mg/L	50	04-May-2014 00:41
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3511 / 24-Apr-2014 Analyst: RPM	
TPH (Diesel Range)	0.65		0.021	0.053	mg/L	1	24-Apr-2014 17:30
Surr: 2-Fluorobiphenyl	92.7			60-135	%REC	1	24-Apr-2014 17:30
NITRATE/NITRITE BY E300.0		Method:E300				Analyst: JKP	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	13-May-2014 03:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
Sample ID: NCL-31-0414-D
Collection Date: 17-Apr-2014 09:15

ANALYTICAL REPORT

WorkOrder:HS14040954
Lab ID:HS14040954-02
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 01-May-2014		Analyst: ALR	
Arsenic	0.0112		0.00100	0.00500	mg/L	1	15-May-2014 03:21
Barium	0.0194		0.000900	0.00500	mg/L	1	15-May-2014 03:21
Chromium	U		0.00100	0.00500	mg/L	1	15-May-2014 03:21
Iron	0.940		0.0780	0.200	mg/L	1	15-May-2014 03:21
Lead	U		0.000700	0.00500	mg/L	1	15-May-2014 03:21
Manganese	1.59		0.0250	0.0500	mg/L	10	15-May-2014 16:48
Selenium	U		0.00100	0.00500	mg/L	1	15-May-2014 03:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: MW-108-0414
 Collection Date: 17-Apr-2014 09:50

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-03
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:02
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:02
1,1,2-Trichloroethane	0.00063	J	0.00050	0.0050	mg/L	1	29-Apr-2014 14:02
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 14:02
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:02
1,2,4-Trimethylbenzene	0.031		0.00050	0.0050	mg/L	1	29-Apr-2014 14:02
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 14:02
1,2-Dichloroethane	0.0098		0.00050	0.0050	mg/L	1	29-Apr-2014 14:02
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	29-Apr-2014 14:02
1,3,5-Trimethylbenzene	0.0034	J	0.00060	0.0050	mg/L	1	29-Apr-2014 14:02
2-Butanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 14:02
2-Hexanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 14:02
4-Isopropyltoluene	0.0019	J	0.00050	0.0050	mg/L	1	29-Apr-2014 14:02
4-Methyl-2-pentanone	0.0012	J	0.0010	0.010	mg/L	1	29-Apr-2014 14:02
Acetone	0.0079	J	0.0020	0.010	mg/L	1	29-Apr-2014 14:02
Benzene	0.39		0.0060	0.050	mg/L	10	29-Apr-2014 16:45
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	29-Apr-2014 14:02
Bromoform	0.00073	J	0.00050	0.0050	mg/L	1	29-Apr-2014 14:02
Bromomethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:02
Carbon disulfide	0.0020	J	0.00090	0.010	mg/L	1	29-Apr-2014 14:02
Carbon tetrachloride	0.0090		0.00060	0.0050	mg/L	1	29-Apr-2014 14:02
Chlorobenzene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 14:02
Chloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:02
Chloroform	0.0037	J	0.00060	0.0050	mg/L	1	29-Apr-2014 14:02
Chloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:02
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 14:02
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 14:02
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:02
Ethylbenzene	0.0049	J	0.00050	0.0050	mg/L	1	29-Apr-2014 14:02
Isopropylbenzene	0.023		0.00050	0.0050	mg/L	1	29-Apr-2014 14:02
m,p-Xylene	0.051		0.00060	0.010	mg/L	1	29-Apr-2014 14:02
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	29-Apr-2014 14:02
Methylene chloride	U		0.0010	0.010	mg/L	1	29-Apr-2014 14:02
Naphthalene	0.0092		0.00070	0.0050	mg/L	1	29-Apr-2014 14:02
n-Butylbenzene	0.0029	J	0.0010	0.0050	mg/L	1	29-Apr-2014 14:02
n-Propylbenzene	0.021		0.00050	0.0050	mg/L	1	29-Apr-2014 14:02
o-Xylene	0.0028	J	0.00050	0.0050	mg/L	1	29-Apr-2014 14:02
sec-Butylbenzene	0.0039	J	0.00060	0.0050	mg/L	1	29-Apr-2014 14:02
Styrene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:02
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 14:02
Toluene	0.0065		0.00050	0.0050	mg/L	1	29-Apr-2014 14:02
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 14:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: MW-108-0414
 Collection Date: 17-Apr-2014 09:50

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-03
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 14:02
Trichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:02
Vinyl chloride	U		0.00040	0.0020	mg/L	1	29-Apr-2014 14:02
Xylenes, Total	0.054		0.0015	0.015	mg/L	1	29-Apr-2014 14:02
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	1	29-Apr-2014 14:02
Surr: 1,2-Dichloroethane-d4	106			70-125	%REC	10	29-Apr-2014 16:45
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	29-Apr-2014 14:02
Surr: 4-Bromofluorobenzene	101			72-125	%REC	10	29-Apr-2014 16:45
Surr: Dibromofluoromethane	103			71-125	%REC	1	29-Apr-2014 14:02
Surr: Dibromofluoromethane	104			71-125	%REC	10	29-Apr-2014 16:45
Surr: Toluene-d8	96.2			75-125	%REC	10	29-Apr-2014 16:45
Surr: Toluene-d8	97.8			75-125	%REC	1	29-Apr-2014 14:02
ICP-MS METALS BY SW6020A		Method:SW6020				Prep:SW3010A / 05-May-2014	Analyst: SKS
Arsenic	0.00320	J	0.00100	0.00500	mg/L	1	19-May-2014 18:22
Barium	0.0460		0.000900	0.00500	mg/L	1	19-May-2014 18:22
Calcium	316		0.670	5.00	mg/L	10	20-May-2014 13:37
Chromium	0.00333	J	0.00100	0.00500	mg/L	1	19-May-2014 18:22
Iron	0.310		0.0500	0.200	mg/L	1	19-May-2014 18:22
Lead	0.00196	J	0.000700	0.00500	mg/L	1	19-May-2014 18:22
Manganese	0.0338		0.00250	0.00500	mg/L	1	19-May-2014 18:22
Potassium	1.07		0.0500	0.200	mg/L	1	19-May-2014 18:22
Selenium	0.00115	J	0.00100	0.00500	mg/L	1	19-May-2014 18:22
Sodium	89.3		0.0500	0.200	mg/L	1	19-May-2014 18:22
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	2,820		5.00	10.0	mg/L	1	23-Apr-2014 18:50
ANIONS BY E300.0		Method:E300				Analyst: JKP	
Chloride	101		10.0	25.0	mg/L	50	04-May-2014 01:07
Fluoride	1.58		0.0500	0.100	mg/L	1	04-May-2014 10:35
Sulfate	1,130		10.0	25.0	mg/L	50	04-May-2014 01:07
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3511 / 24-Apr-2014	Analyst: RPM
TPH (Diesel Range)	3.0		0.021	0.052	mg/L	1	24-Apr-2014 17:57
Surr: 2-Fluorobiphenyl	116			60-135	%REC	1	24-Apr-2014 17:57
NITRATE/NITRITE BY E300.0		Method:E300				Analyst: JKP	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	13-May-2014 03:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
Sample ID: MW-108-0414-D
Collection Date: 17-Apr-2014 09:50

ANALYTICAL REPORT

WorkOrder:HS14040954
Lab ID:HS14040954-04
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 01-May-2014		Analyst: ALR	
Arsenic	0.00326	J	0.00100	0.00500	mg/L	1	15-May-2014 03:25
Barium	0.0457		0.000900	0.00500	mg/L	1	15-May-2014 03:25
Chromium	0.00207	J	0.00100	0.00500	mg/L	1	15-May-2014 03:25
Iron	U		0.0780	0.200	mg/L	1	15-May-2014 03:25
Lead	0.000952	J	0.000700	0.00500	mg/L	1	15-May-2014 03:25
Manganese	0.0290		0.00250	0.00500	mg/L	1	15-May-2014 03:25
Selenium	U		0.00100	0.00500	mg/L	1	15-May-2014 03:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: NCL-44-0414
 Collection Date: 17-Apr-2014 10:45

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-05
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:26
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:26
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:26
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 14:26
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:26
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:26
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 14:26
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:26
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	29-Apr-2014 14:26
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 14:26
2-Butanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 14:26
2-Hexanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 14:26
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:26
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 14:26
Acetone	U		0.0020	0.010	mg/L	1	29-Apr-2014 14:26
Benzene	0.0011	J	0.00060	0.0050	mg/L	1	29-Apr-2014 14:26
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	29-Apr-2014 14:26
Bromoform	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:26
Bromomethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:26
Carbon disulfide	U		0.00090	0.010	mg/L	1	29-Apr-2014 14:26
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	29-Apr-2014 14:26
Chlorobenzene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 14:26
Chloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:26
Chloroform	U		0.00060	0.0050	mg/L	1	29-Apr-2014 14:26
Chloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:26
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 14:26
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 14:26
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:26
Ethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:26
Isopropylbenzene	0.0013	J	0.00050	0.0050	mg/L	1	29-Apr-2014 14:26
m,p-Xylene	U		0.00060	0.010	mg/L	1	29-Apr-2014 14:26
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	29-Apr-2014 14:26
Methylene chloride	U		0.0010	0.010	mg/L	1	29-Apr-2014 14:26
Naphthalene	0.0026	J	0.00070	0.0050	mg/L	1	29-Apr-2014 14:26
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	29-Apr-2014 14:26
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:26
o-Xylene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:26
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 14:26
Styrene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:26
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 14:26
Toluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:26
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 14:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: NCL-44-0414
 Collection Date: 17-Apr-2014 10:45

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-05
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 14:26
Trichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 14:26
Vinyl chloride	U		0.00040	0.0020	mg/L	1	29-Apr-2014 14:26
Xylenes, Total	U		0.0015	0.015	mg/L	1	29-Apr-2014 14:26
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	1	29-Apr-2014 14:26
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	29-Apr-2014 14:26
Surr: Dibromofluoromethane	103			71-125	%REC	1	29-Apr-2014 14:26
Surr: Toluene-d8	96.2			75-125	%REC	1	29-Apr-2014 14:26
ICP-MS METALS BY SW6020A		Method:SW6020				Prep:SW3010A / 05-May-2014 Analyst: SKS	
Arsenic	0.0383		0.00100	0.00500	mg/L	1	19-May-2014 18:25
Barium	0.0276		0.000900	0.00500	mg/L	1	19-May-2014 18:25
Calcium	265		0.670	5.00	mg/L	10	20-May-2014 13:40
Chromium	U		0.00100	0.00500	mg/L	1	19-May-2014 18:25
Iron	1.25		0.0500	0.200	mg/L	1	19-May-2014 18:25
Lead	U		0.000700	0.00500	mg/L	1	19-May-2014 18:25
Manganese	0.656		0.00250	0.00500	mg/L	1	19-May-2014 18:25
Potassium	2.06		0.0500	0.200	mg/L	1	19-May-2014 18:25
Selenium	0.00122	J	0.00100	0.00500	mg/L	1	19-May-2014 18:25
Sodium	66.0		0.0500	0.200	mg/L	1	19-May-2014 18:25
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	1,720		5.00	10.0	mg/L	1	23-Apr-2014 18:50
ANIONS BY E300.0		Method:E300				Analyst: JKP	
Chloride	149		10.0	25.0	mg/L	50	04-May-2014 01:33
Fluoride	1.20		0.0500	0.100	mg/L	1	04-May-2014 11:01
Sulfate	454		10.0	25.0	mg/L	50	04-May-2014 01:33
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3511 / 24-Apr-2014 Analyst: RPM	
TPH (Diesel Range)	1.5		0.020	0.051	mg/L	1	24-Apr-2014 18:23
Surr: 2-Fluorobiphenyl	116			60-135	%REC	1	24-Apr-2014 18:23
NITRATE/NITRITE BY E300.0		Method:E300				Analyst: JKP	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	13-May-2014 03:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
Sample ID: NCL-44-0414-D
Collection Date: 17-Apr-2014 10:45

ANALYTICAL REPORT

WorkOrder:HS14040954
Lab ID:HS14040954-06
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 01-May-2014		Analyst: ALR	
Arsenic	0.0372		0.00100	0.00500	mg/L	1	15-May-2014 03:30
Barium	0.0289		0.000900	0.00500	mg/L	1	15-May-2014 03:30
Chromium	U		0.00100	0.00500	mg/L	1	15-May-2014 03:30
Iron	1.21		0.0780	0.200	mg/L	1	15-May-2014 03:30
Lead	U		0.000700	0.00500	mg/L	1	15-May-2014 03:30
Manganese	0.661		0.00250	0.00500	mg/L	1	15-May-2014 03:30
Selenium	U		0.00100	0.00500	mg/L	1	15-May-2014 03:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: NCL-33-0414
 Collection Date: 17-Apr-2014 11:25

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-07
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:09
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:09
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:09
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 15:09
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:09
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:09
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 15:09
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:09
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	29-Apr-2014 15:09
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:09
2-Butanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 15:09
2-Hexanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 15:09
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:09
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 15:09
Acetone	U		0.0020	0.010	mg/L	1	29-Apr-2014 15:09
Benzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:09
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:09
Bromoform	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:09
Bromomethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:09
Carbon disulfide	U		0.00090	0.010	mg/L	1	29-Apr-2014 15:09
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:09
Chlorobenzene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 15:09
Chloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:09
Chloroform	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:09
Chloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:09
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:09
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:09
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:09
Ethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:09
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:09
m,p-Xylene	U		0.00060	0.010	mg/L	1	29-Apr-2014 15:09
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:09
Methylene chloride	U		0.0010	0.010	mg/L	1	29-Apr-2014 15:09
Naphthalene	U		0.00070	0.0050	mg/L	1	29-Apr-2014 15:09
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	29-Apr-2014 15:09
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:09
o-Xylene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:09
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:09
Styrene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:09
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:09
Toluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:09
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 15:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: NCL-33-0414
 Collection Date: 17-Apr-2014 11:25

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-07
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:09
Trichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:09
Vinyl chloride	U		0.00040	0.0020	mg/L	1	29-Apr-2014 15:09
Xylenes, Total	U		0.0015	0.015	mg/L	1	29-Apr-2014 15:09
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	1	29-Apr-2014 15:09
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	29-Apr-2014 15:09
Surr: Dibromofluoromethane	104			71-125	%REC	1	29-Apr-2014 15:09
Surr: Toluene-d8	96.0			75-125	%REC	1	29-Apr-2014 15:09
ICP-MS METALS BY SW6020A		Method:SW6020				Prep:SW3010A / 05-May-2014 Analyst: SKS	
Arsenic	0.00230	J	0.00100	0.00500	mg/L	1	19-May-2014 18:27
Barium	0.0246		0.000900	0.00500	mg/L	1	19-May-2014 18:27
Calcium	358		0.670	5.00	mg/L	10	20-May-2014 13:42
Chromium	U		0.00100	0.00500	mg/L	1	19-May-2014 18:27
Iron	2.98		0.0500	0.200	mg/L	1	19-May-2014 18:27
Lead	U		0.000700	0.00500	mg/L	1	19-May-2014 18:27
Manganese	0.0896		0.00250	0.00500	mg/L	1	19-May-2014 18:27
Potassium	3.78		0.0500	0.200	mg/L	1	19-May-2014 18:27
Selenium	0.00142	J	0.00100	0.00500	mg/L	1	19-May-2014 18:27
Sodium	105		0.0500	0.200	mg/L	1	19-May-2014 18:27
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	1,920		5.00	10.0	mg/L	1	23-Apr-2014 18:50
ANIONS BY E300.0		Method:E300				Analyst: JKP	
Chloride	302		10.0	25.0	mg/L	50	04-May-2014 01:59
Fluoride	1.83		0.0500	0.100	mg/L	1	04-May-2014 11:27
Sulfate	557		10.0	25.0	mg/L	50	04-May-2014 01:59
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3511 / 24-Apr-2014 Analyst: RPM	
TPH (Diesel Range)	1.2		0.021	0.051	mg/L	1	24-Apr-2014 18:49
Surr: 2-Fluorobiphenyl	105			60-135	%REC	1	24-Apr-2014 18:49
NITRATE/NITRITE BY E300.0		Method:E300				Analyst: JKP	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	13-May-2014 03:48

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
Sample ID: NCL-33-0414-D
Collection Date: 17-Apr-2014 11:25

ANALYTICAL REPORT

WorkOrder:HS14040954
Lab ID:HS14040954-08
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 01-May-2014		Analyst: ALR	
Arsenic	0.00264	J	0.00100	0.00500	mg/L	1	15-May-2014 03:39
Barium	0.0247		0.000900	0.00500	mg/L	1	15-May-2014 03:39
Chromium	U		0.00100	0.00500	mg/L	1	15-May-2014 03:39
Iron	2.68		0.0780	0.200	mg/L	1	15-May-2014 03:39
Lead	U		0.000700	0.00500	mg/L	1	15-May-2014 03:39
Manganese	0.0855		0.00250	0.00500	mg/L	1	15-May-2014 03:39
Selenium	0.00104	J	0.00100	0.00500	mg/L	1	15-May-2014 03:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: MW-18-0414
 Collection Date: 17-Apr-2014 12:05

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-09
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:33
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:33
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:33
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 15:33
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:33
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:33
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 15:33
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:33
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	29-Apr-2014 15:33
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:33
2-Butanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 15:33
2-Hexanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 15:33
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:33
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 15:33
Acetone	0.0045	J	0.0020	0.010	mg/L	1	29-Apr-2014 15:33
Benzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:33
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:33
Bromoform	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:33
Bromomethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:33
Carbon disulfide	U		0.00090	0.010	mg/L	1	29-Apr-2014 15:33
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:33
Chlorobenzene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 15:33
Chloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:33
Chloroform	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:33
Chloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:33
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:33
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:33
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:33
Ethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:33
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:33
m,p-Xylene	U		0.00060	0.010	mg/L	1	29-Apr-2014 15:33
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:33
Methylene chloride	U		0.0010	0.010	mg/L	1	29-Apr-2014 15:33
Naphthalene	U		0.00070	0.0050	mg/L	1	29-Apr-2014 15:33
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	29-Apr-2014 15:33
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:33
o-Xylene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:33
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:33
Styrene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:33
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:33
Toluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:33
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 15:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: MW-18-0414
 Collection Date: 17-Apr-2014 12:05

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-09
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 15:33
Trichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 15:33
Vinyl chloride	U		0.00040	0.0020	mg/L	1	29-Apr-2014 15:33
Xylenes, Total	U		0.0015	0.015	mg/L	1	29-Apr-2014 15:33
Surr: 1,2-Dichloroethane-d4	103			70-125	%REC	1	29-Apr-2014 15:33
Surr: 4-Bromofluorobenzene	98.6			72-125	%REC	1	29-Apr-2014 15:33
Surr: Dibromofluoromethane	104			71-125	%REC	1	29-Apr-2014 15:33
Surr: Toluene-d8	97.3			75-125	%REC	1	29-Apr-2014 15:33
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014 Analyst: SKS			
Arsenic	0.00313	J	0.00100	0.00500	mg/L	1	19-May-2014 18:30
Barium	0.0168		0.000900	0.00500	mg/L	1	19-May-2014 18:30
Calcium	507		0.670	5.00	mg/L	10	20-May-2014 13:44
Chromium	U		0.00100	0.00500	mg/L	1	19-May-2014 18:30
Iron	0.146	J	0.0500	0.200	mg/L	1	19-May-2014 18:30
Lead	U		0.000700	0.00500	mg/L	1	19-May-2014 18:30
Manganese	0.0203		0.00250	0.00500	mg/L	1	19-May-2014 18:30
Nickel	0.00151	J	0.00100	0.00500	mg/L	1	19-May-2014 18:30
Potassium	2.89		0.0500	0.200	mg/L	1	19-May-2014 18:30
Selenium	0.0112		0.00100	0.00500	mg/L	1	19-May-2014 18:30
Sodium	83.2		0.0500	0.200	mg/L	1	19-May-2014 18:30
Vanadium	0.0172		0.000900	0.00500	mg/L	1	19-May-2014 18:30
CYANIDE BY SW9012B		Method:SW9012		Prep:SW9010C Analyst: KKB			
Cyanide	U		0.00500	0.0200	mg/L	1	01-May-2014 14:00
MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 05-May-2014 Analyst: JCJ			
Mercury	U		0.0000400	0.000200	mg/L	1	05-May-2014 17:29
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	3,700		5.00	10.0	mg/L	1	23-Apr-2014 18:50
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	159		10.0	25.0	mg/L	50	04-May-2014 02:24
Fluoride	0.954		0.0500	0.100	mg/L	1	04-May-2014 11:52
Sulfate	1,830		10.0	25.0	mg/L	50	04-May-2014 02:24
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 24-Apr-2014 Analyst: RPM			
TPH (Diesel Range)	0.28		0.021	0.051	mg/L	1	24-Apr-2014 19:16
Surr: 2-Fluorobiphenyl	104			60-135	%REC	1	24-Apr-2014 19:16
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	35.2		0.150	1.00	mg/L	5	13-May-2014 04:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: MW-18-0414-D
 Collection Date: 17-Apr-2014 12:05

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-10
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014		Analyst: ALR	
Arsenic	0.00488	J	0.00100	0.00500	mg/L	1	22-May-2014 01:21
Barium	0.0183		0.000900	0.00500	mg/L	1	22-May-2014 01:21
Chromium	0.00170	J	0.00100	0.00500	mg/L	1	22-May-2014 01:21
Iron		U	0.0780	0.200	mg/L	1	22-May-2014 01:21
Lead	0.000942	J	0.000700	0.00500	mg/L	1	22-May-2014 01:21
Manganese	0.0110		0.00250	0.00500	mg/L	1	22-May-2014 01:21
Nickel	0.00102	J	0.00100	0.00500	mg/L	1	22-May-2014 01:21
Selenium	0.0136		0.00100	0.00500	mg/L	1	22-May-2014 01:21
Vanadium	0.0161		0.000900	0.00500	mg/L	1	22-May-2014 01:21
DISSOLVED MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 02-May-2014		Analyst: JCJ	
Mercury		U	0.0000420	0.000200	mg/L	1	02-May-2014 16:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: MW-55-0414
 Collection Date: 17-Apr-2014 12:45

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-11
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:09
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:09
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:09
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 17:09
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:09
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:09
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 17:09
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:09
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	29-Apr-2014 17:09
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:09
2-Butanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 17:09
2-Hexanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 17:09
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:09
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 17:09
Acetone	U		0.0020	0.010	mg/L	1	29-Apr-2014 17:09
Benzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:09
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:09
Bromoform	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:09
Bromomethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:09
Carbon disulfide	U		0.00090	0.010	mg/L	1	29-Apr-2014 17:09
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:09
Chlorobenzene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 17:09
Chloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:09
Chloroform	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:09
Chloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:09
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:09
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:09
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:09
Ethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:09
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:09
m,p-Xylene	U		0.00060	0.010	mg/L	1	29-Apr-2014 17:09
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:09
Methylene chloride	U		0.0010	0.010	mg/L	1	29-Apr-2014 17:09
Naphthalene	U		0.00070	0.0050	mg/L	1	29-Apr-2014 17:09
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	29-Apr-2014 17:09
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:09
o-Xylene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:09
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:09
Styrene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:09
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:09
Toluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:09
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 17:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: MW-55-0414
 Collection Date: 17-Apr-2014 12:45

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-11
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:09
Trichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:09
Vinyl chloride	U		0.00040	0.0020	mg/L	1	29-Apr-2014 17:09
Xylenes, Total	U		0.0015	0.015	mg/L	1	29-Apr-2014 17:09
Surr: 1,2-Dichloroethane-d4	103			70-125	%REC	1	29-Apr-2014 17:09
Surr: 4-Bromofluorobenzene	99.4			72-125	%REC	1	29-Apr-2014 17:09
Surr: Dibromofluoromethane	104			71-125	%REC	1	29-Apr-2014 17:09
Surr: Toluene-d8	97.3			75-125	%REC	1	29-Apr-2014 17:09
ICP-MS METALS BY SW6020A		Method:SW6020				Prep:SW3010A / 05-May-2014 Analyst: SKS	
Arsenic	0.00506		0.00100	0.00500	mg/L	1	19-May-2014 18:32
Barium	0.0106		0.000900	0.00500	mg/L	1	19-May-2014 18:32
Calcium	560		0.670	5.00	mg/L	10	20-May-2014 13:47
Chromium	U		0.00100	0.00500	mg/L	1	19-May-2014 18:32
Iron	0.0618	J	0.0500	0.200	mg/L	1	19-May-2014 18:32
Lead	U		0.000700	0.00500	mg/L	1	19-May-2014 18:32
Manganese	0.195		0.00250	0.00500	mg/L	1	19-May-2014 18:32
Nickel	0.00498	J	0.00100	0.00500	mg/L	1	19-May-2014 18:32
Potassium	0.926		0.0500	0.200	mg/L	1	19-May-2014 18:32
Selenium	0.0245		0.00100	0.00500	mg/L	1	19-May-2014 18:32
Sodium	233		0.500	2.00	mg/L	10	20-May-2014 13:47
Vanadium	0.0176		0.000900	0.00500	mg/L	1	19-May-2014 18:32
CYANIDE BY SW9012B		Method:SW9012				Prep:SW9010C Analyst: KKB	
Cyanide	U		0.00500	0.0200	mg/L	1	01-May-2014 14:00
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: DNR	
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	28-Apr-2014 17:17
Surr: 4-Bromofluorobenzene	119			70-130	%REC	1	28-Apr-2014 17:17
MERCURY BY SW7470A		Method:SW7470				Prep:SW7470 / 05-May-2014 Analyst: JCJ	
Mercury	U		0.0000400	0.000200	mg/L	1	05-May-2014 17:31
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	5,100		5.00	10.0	mg/L	1	23-Apr-2014 18:50
ANIONS BY E300.0		Method:E300				Analyst: JKP	
Chloride	357		10.0	25.0	mg/L	50	04-May-2014 02:50
Fluoride	1.14		0.0500	0.100	mg/L	1	04-May-2014 12:18
Sulfate	2,670		10.0	25.0	mg/L	50	04-May-2014 02:50
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3511 / 24-Apr-2014 Analyst: RPM	
TPH (Diesel Range)	U		0.020	0.051	mg/L	1	24-Apr-2014 19:42
Surr: 2-Fluorobiphenyl	101			60-135	%REC	1	24-Apr-2014 19:42
NITRATE/NITRITE BY E300.0		Method:E300				Analyst: JKP	
Nitrate/Nitrite (as N)	9.61		0.150	1.00	mg/L	5	13-May-2014 04:46

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: MW-55-04174-D
 Collection Date: 17-Apr-2014 12:45

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-12
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014		Analyst: ALR	
Arsenic	0.00641		0.00100	0.00500	mg/L	1	22-May-2014 01:25
Barium	0.00965		0.000900	0.00500	mg/L	1	22-May-2014 01:25
Chromium	U		0.00100	0.00500	mg/L	1	22-May-2014 01:25
Iron	U		0.0780	0.200	mg/L	1	22-May-2014 01:25
Lead	U		0.000700	0.00500	mg/L	1	22-May-2014 01:25
Manganese	0.0595		0.00250	0.00500	mg/L	1	22-May-2014 01:25
Nickel	0.00400	J	0.00100	0.00500	mg/L	1	22-May-2014 01:25
Selenium	0.0253		0.00100	0.00500	mg/L	1	22-May-2014 01:25
Vanadium	0.0156		0.000900	0.00500	mg/L	1	22-May-2014 01:25
DISSOLVED MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 02-May-2014		Analyst: JCJ	
Mercury	U		0.0000420	0.000200	mg/L	1	02-May-2014 16:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: Dup-08-0414
 Collection Date: 17-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-13
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:33
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:33
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:33
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 17:33
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:33
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:33
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 17:33
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:33
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	29-Apr-2014 17:33
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:33
2-Butanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 17:33
2-Hexanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 17:33
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:33
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 17:33
Acetone	U		0.0020	0.010	mg/L	1	29-Apr-2014 17:33
Benzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:33
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:33
Bromoform	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:33
Bromomethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:33
Carbon disulfide	U		0.00090	0.010	mg/L	1	29-Apr-2014 17:33
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:33
Chlorobenzene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 17:33
Chloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:33
Chloroform	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:33
Chloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:33
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:33
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:33
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:33
Ethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:33
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:33
m,p-Xylene	U		0.00060	0.010	mg/L	1	29-Apr-2014 17:33
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:33
Methylene chloride	U		0.0010	0.010	mg/L	1	29-Apr-2014 17:33
Naphthalene	U		0.00070	0.0050	mg/L	1	29-Apr-2014 17:33
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	29-Apr-2014 17:33
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:33
o-Xylene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:33
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:33
Styrene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:33
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:33
Toluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:33
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 17:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: Dup-08-0414
 Collection Date: 17-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-13
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:33
Trichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:33
Vinyl chloride	U		0.00040	0.0020	mg/L	1	29-Apr-2014 17:33
Xylenes, Total	U		0.0015	0.015	mg/L	1	29-Apr-2014 17:33
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	1	29-Apr-2014 17:33
Surr: 4-Bromofluorobenzene	98.6			72-125	%REC	1	29-Apr-2014 17:33
Surr: Dibromofluoromethane	104			71-125	%REC	1	29-Apr-2014 17:33
Surr: Toluene-d8	96.9			75-125	%REC	1	29-Apr-2014 17:33
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014 Analyst: SKS			
Arsenic	0.00484	J	0.00100	0.00500	mg/L	1	19-May-2014 18:35
Barium	0.00952		0.000900	0.00500	mg/L	1	19-May-2014 18:35
Calcium	573		0.670	5.00	mg/L	10	20-May-2014 13:54
Chromium	U		0.00100	0.00500	mg/L	1	19-May-2014 18:35
Iron	U		0.0500	0.200	mg/L	1	19-May-2014 18:35
Lead	U		0.000700	0.00500	mg/L	1	19-May-2014 18:35
Manganese	0.185		0.00250	0.00500	mg/L	1	19-May-2014 18:35
Nickel	0.00409	J	0.00100	0.00500	mg/L	1	19-May-2014 18:35
Potassium	0.882		0.0500	0.200	mg/L	1	19-May-2014 18:35
Selenium	0.0238		0.00100	0.00500	mg/L	1	19-May-2014 18:35
Sodium	231		0.500	2.00	mg/L	10	20-May-2014 13:54
Vanadium	0.0177		0.000900	0.00500	mg/L	1	19-May-2014 18:35
CYANIDE BY SW9012B		Method:SW9012		Prep:SW9010C Analyst: KKB			
Cyanide	U		0.00500	0.0200	mg/L	1	01-May-2014 14:00
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	28-Apr-2014 17:39
Surr: 4-Bromofluorobenzene	114			70-130	%REC	1	28-Apr-2014 17:39
MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 05-May-2014 Analyst: JCJ			
Mercury	U		0.0000400	0.000200	mg/L	1	05-May-2014 17:32
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	5,360		5.00	10.0	mg/L	1	23-Apr-2014 18:50
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	445		10.0	25.0	mg/L	50	04-May-2014 03:16
Fluoride	1.10		0.0500	0.100	mg/L	1	04-May-2014 12:44
Sulfate	2,600		10.0	25.0	mg/L	50	04-May-2014 03:16
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 24-Apr-2014 Analyst: RPM			
TPH (Diesel Range)	U		0.021	0.052	mg/L	1	24-Apr-2014 20:08
Surr: 2-Fluorobiphenyl	89.5			60-135	%REC	1	24-Apr-2014 20:08
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	9.43		0.150	1.00	mg/L	5	13-May-2014 05:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: Dup-08-0414-D
 Collection Date: 17-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-14
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014		Analyst: ALR	
Arsenic	0.00659		0.00100	0.00500	mg/L	1	22-May-2014 01:30
Barium	0.00871		0.000900	0.00500	mg/L	1	22-May-2014 01:30
Chromium	U		0.00100	0.00500	mg/L	1	22-May-2014 01:30
Iron	U		0.0780	0.200	mg/L	1	22-May-2014 01:30
Lead	U		0.000700	0.00500	mg/L	1	22-May-2014 01:30
Manganese	0.0596		0.00250	0.00500	mg/L	1	22-May-2014 01:30
Nickel	0.00345	J	0.00100	0.00500	mg/L	1	22-May-2014 01:30
Selenium	0.0272		0.00100	0.00500	mg/L	1	22-May-2014 01:30
Vanadium	0.0156		0.000900	0.00500	mg/L	1	22-May-2014 01:30
DISSOLVED MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 02-May-2014		Analyst: JCJ	
Mercury	U		0.0000420	0.000200	mg/L	1	02-May-2014 17:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: MW-56-0414
 Collection Date: 17-Apr-2014 13:15

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-15
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:57
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:57
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:57
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 17:57
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:57
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:57
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 17:57
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:57
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	29-Apr-2014 17:57
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:57
2-Butanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 17:57
2-Hexanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 17:57
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:57
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 17:57
Acetone	U		0.0020	0.010	mg/L	1	29-Apr-2014 17:57
Benzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:57
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:57
Bromoform	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:57
Bromomethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:57
Carbon disulfide	U		0.00090	0.010	mg/L	1	29-Apr-2014 17:57
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:57
Chlorobenzene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 17:57
Chloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:57
Chloroform	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:57
Chloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:57
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:57
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:57
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:57
Ethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:57
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:57
m,p-Xylene	U		0.00060	0.010	mg/L	1	29-Apr-2014 17:57
Methyl tert-butyl ether	0.0057		0.00060	0.0050	mg/L	1	29-Apr-2014 17:57
Methylene chloride	U		0.0010	0.010	mg/L	1	29-Apr-2014 17:57
Naphthalene	U		0.00070	0.0050	mg/L	1	29-Apr-2014 17:57
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	29-Apr-2014 17:57
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:57
o-Xylene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:57
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:57
Styrene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:57
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:57
Toluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:57
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 17:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: MW-56-0414
 Collection Date: 17-Apr-2014 13:15

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-15
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 17:57
Trichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 17:57
Vinyl chloride	U		0.00040	0.0020	mg/L	1	29-Apr-2014 17:57
Xylenes, Total	U		0.0015	0.015	mg/L	1	29-Apr-2014 17:57
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	1	29-Apr-2014 17:57
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	29-Apr-2014 17:57
Surr: Dibromofluoromethane	101			71-125	%REC	1	29-Apr-2014 17:57
Surr: Toluene-d8	97.9			75-125	%REC	1	29-Apr-2014 17:57
ICP-MS METALS BY SW6020A		Method:SW6020				Prep:SW3010A / 05-May-2014 Analyst: SKS	
Arsenic	0.00689		0.00100	0.00500	mg/L	1	19-May-2014 18:37
Barium	0.0137		0.000900	0.00500	mg/L	1	19-May-2014 18:37
Calcium	559		0.670	5.00	mg/L	10	20-May-2014 13:57
Chromium	U		0.00100	0.00500	mg/L	1	19-May-2014 18:37
Iron	U		0.0500	0.200	mg/L	1	19-May-2014 18:37
Lead	0.000927	J	0.000700	0.00500	mg/L	1	19-May-2014 18:37
Manganese	0.360		0.00250	0.00500	mg/L	1	19-May-2014 18:37
Potassium	1.88		0.0500	0.200	mg/L	1	19-May-2014 18:37
Selenium	0.00495	J	0.00100	0.00500	mg/L	1	19-May-2014 18:37
Sodium	237		0.500	2.00	mg/L	10	20-May-2014 13:57
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	4,320		5.00	10.0	mg/L	1	23-Apr-2014 18:50
ANIONS BY E300.0		Method:E300				Analyst: JKP	
Chloride	365		10.0	25.0	mg/L	50	04-May-2014 03:42
Fluoride	0.639		0.0500	0.100	mg/L	1	04-May-2014 13:10
Sulfate	1,840		10.0	25.0	mg/L	50	04-May-2014 03:42
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3511 / 24-Apr-2014 Analyst: RPM	
TPH (Diesel Range)	0.29		0.021	0.053	mg/L	1	24-Apr-2014 21:27
Surr: 2-Fluorobiphenyl	91.0			60-135	%REC	1	24-Apr-2014 21:27
NITRATE/NITRITE BY E300.0		Method:E300				Analyst: JKP	
Nitrate/Nitrite (as N)	2.32		0.150	1.00	mg/L	5	13-May-2014 05:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
Sample ID: MW-56-0414-D
Collection Date: 17-Apr-2014 13:15

ANALYTICAL REPORT

WorkOrder:HS14040954
Lab ID:HS14040954-16
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014		Analyst: ALR	
Arsenic	0.00883		0.00100	0.00500	mg/L	1	22-May-2014 01:34
Barium	0.0136		0.000900	0.00500	mg/L	1	22-May-2014 01:34
Chromium	U		0.00100	0.00500	mg/L	1	22-May-2014 01:34
Iron	U		0.0780	0.200	mg/L	1	22-May-2014 01:34
Lead	U		0.000700	0.00500	mg/L	1	22-May-2014 01:34
Manganese	0.336		0.00250	0.00500	mg/L	1	22-May-2014 01:34
Selenium	0.00579		0.00100	0.00500	mg/L	1	22-May-2014 01:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: MW-45-0414
 Collection Date: 17-Apr-2014 14:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-17
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:21
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:21
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:21
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 18:21
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:21
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:21
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 18:21
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:21
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	29-Apr-2014 18:21
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:21
2-Butanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 18:21
2-Hexanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 18:21
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:21
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 18:21
Acetone	U		0.0020	0.010	mg/L	1	29-Apr-2014 18:21
Benzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:21
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:21
Bromoform	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:21
Bromomethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:21
Carbon disulfide	U		0.00090	0.010	mg/L	1	29-Apr-2014 18:21
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:21
Chlorobenzene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 18:21
Chloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:21
Chloroform	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:21
Chloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:21
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:21
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:21
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:21
Ethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:21
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:21
m,p-Xylene	U		0.00060	0.010	mg/L	1	29-Apr-2014 18:21
Methyl tert-butyl ether	0.0043	J	0.00060	0.0050	mg/L	1	29-Apr-2014 18:21
Methylene chloride	U		0.0010	0.010	mg/L	1	29-Apr-2014 18:21
Naphthalene	U		0.00070	0.0050	mg/L	1	29-Apr-2014 18:21
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	29-Apr-2014 18:21
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:21
o-Xylene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:21
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:21
Styrene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:21
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:21
Toluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:21
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 18:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: MW-45-0414
 Collection Date: 17-Apr-2014 14:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-17
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:21
Trichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:21
Vinyl chloride	U		0.00040	0.0020	mg/L	1	29-Apr-2014 18:21
Xylenes, Total	U		0.0015	0.015	mg/L	1	29-Apr-2014 18:21
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	29-Apr-2014 18:21
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	29-Apr-2014 18:21
Surr: Dibromofluoromethane	103			71-125	%REC	1	29-Apr-2014 18:21
Surr: Toluene-d8	99.4			75-125	%REC	1	29-Apr-2014 18:21
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014 Analyst: SKS			
Arsenic	0.00268	J	0.00100	0.00500	mg/L	1	19-May-2014 18:40
Barium	0.0159		0.000900	0.00500	mg/L	1	19-May-2014 18:40
Calcium	524		0.670	5.00	mg/L	10	20-May-2014 13:59
Chromium	U		0.00100	0.00500	mg/L	1	19-May-2014 18:40
Iron	0.786		0.0500	0.200	mg/L	1	19-May-2014 18:40
Lead	0.00443	J	0.000700	0.00500	mg/L	1	19-May-2014 18:40
Manganese	0.535		0.00250	0.00500	mg/L	1	19-May-2014 18:40
Nickel	0.00736		0.00100	0.00500	mg/L	1	19-May-2014 18:40
Potassium	4.12		0.0500	0.200	mg/L	1	19-May-2014 18:40
Selenium	0.00191	J	0.00100	0.00500	mg/L	1	19-May-2014 18:40
Sodium	348		0.500	2.00	mg/L	10	20-May-2014 13:59
Vanadium	0.00217	J	0.000900	0.00500	mg/L	1	19-May-2014 18:40
CYANIDE BY SW9012B		Method:SW9012		Prep:SW9010C Analyst: KKB			
Cyanide	U		0.00500	0.0200	mg/L	1	01-May-2014 14:00
MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 05-May-2014 Analyst: JCJ			
Mercury	U		0.0000400	0.000200	mg/L	1	05-May-2014 17:34
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	4,640		5.00	10.0	mg/L	1	23-Apr-2014 18:50
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	441		10.0	25.0	mg/L	50	04-May-2014 04:59
Fluoride	0.877		0.0500	0.100	mg/L	1	04-May-2014 14:27
Sulfate	2,130		10.0	25.0	mg/L	50	04-May-2014 04:59
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 24-Apr-2014 Analyst: RPM			
TPH (Diesel Range)	0.27		0.021	0.052	mg/L	1	24-Apr-2014 21:53
Surr: 2-Fluorobiphenyl	90.7			60-135	%REC	1	24-Apr-2014 21:53
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	13-May-2014 05:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: MW-45-0414-D
 Collection Date: 17-Apr-2014 14:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-18
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014		Analyst: ALR	
Arsenic	0.00354	J	0.00100	0.00500	mg/L	1	22-May-2014 17:11
Barium	0.0163		0.000900	0.00500	mg/L	1	22-May-2014 01:39
Chromium	U		0.00100	0.00500	mg/L	1	22-May-2014 17:11
Iron	0.690		0.0780	0.200	mg/L	1	22-May-2014 17:11
Lead	U		0.000700	0.00500	mg/L	1	22-May-2014 01:39
Manganese	0.535		0.00250	0.00500	mg/L	1	22-May-2014 17:11
Nickel	0.00756		0.00100	0.00500	mg/L	1	22-May-2014 17:11
Selenium	0.00198	J	0.00100	0.00500	mg/L	1	22-May-2014 17:11
Vanadium	U		0.000900	0.00500	mg/L	1	22-May-2014 17:11
DISSOLVED MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 02-May-2014		Analyst: JCJ	
Mercury	U		0.0000420	0.000200	mg/L	1	02-May-2014 17:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: NCL-49-0414
 Collection Date: 17-Apr-2014 15:05

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-19
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:45
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:45
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:45
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 18:45
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:45
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:45
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 18:45
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:45
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	29-Apr-2014 18:45
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:45
2-Butanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 18:45
2-Hexanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 18:45
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:45
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 18:45
Acetone	U		0.0020	0.010	mg/L	1	29-Apr-2014 18:45
Benzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:45
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:45
Bromoform	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:45
Bromomethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:45
Carbon disulfide	U		0.00090	0.010	mg/L	1	29-Apr-2014 18:45
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:45
Chlorobenzene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 18:45
Chloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:45
Chloroform	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:45
Chloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:45
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:45
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:45
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:45
Ethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:45
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:45
m,p-Xylene	U		0.00060	0.010	mg/L	1	29-Apr-2014 18:45
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:45
Methylene chloride	U		0.0010	0.010	mg/L	1	29-Apr-2014 18:45
Naphthalene	U		0.00070	0.0050	mg/L	1	29-Apr-2014 18:45
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	29-Apr-2014 18:45
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:45
o-Xylene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:45
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:45
Styrene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:45
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:45
Toluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:45
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 18:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: NCL-49-0414
 Collection Date: 17-Apr-2014 15:05

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-19
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 18:45
Trichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 18:45
Vinyl chloride	U		0.00040	0.0020	mg/L	1	29-Apr-2014 18:45
Xylenes, Total	U		0.0015	0.015	mg/L	1	29-Apr-2014 18:45
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	29-Apr-2014 18:45
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	29-Apr-2014 18:45
Surr: Dibromofluoromethane	101			71-125	%REC	1	29-Apr-2014 18:45
Surr: Toluene-d8	98.0			75-125	%REC	1	29-Apr-2014 18:45
ICP-MS METALS BY SW6020A		Method:SW6020				Prep:SW3010A / 05-May-2014 Analyst: SKS	
Arsenic	0.00187	J	0.00100	0.00500	mg/L	1	19-May-2014 18:42
Barium	0.0115		0.000900	0.00500	mg/L	1	19-May-2014 18:42
Calcium	430		0.670	5.00	mg/L	10	20-May-2014 14:02
Chromium	U		0.00100	0.00500	mg/L	1	19-May-2014 18:42
Iron	U		0.0500	0.200	mg/L	1	19-May-2014 18:42
Lead	U		0.000700	0.00500	mg/L	1	19-May-2014 18:42
Manganese	U		0.00250	0.00500	mg/L	1	19-May-2014 18:42
Potassium	0.625		0.0500	0.200	mg/L	1	19-May-2014 18:42
Selenium	0.00451	J	0.00100	0.00500	mg/L	1	19-May-2014 18:42
Sodium	116		0.0500	0.200	mg/L	1	19-May-2014 18:42
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	3,000		5.00	10.0	mg/L	1	23-Apr-2014 18:50
ANIONS BY E300.0		Method:E300				Analyst: JKP	
Chloride	104		10.0	25.0	mg/L	50	04-May-2014 05:25
Fluoride	0.501		0.0500	0.100	mg/L	1	04-May-2014 14:53
Sulfate	1,680		10.0	25.0	mg/L	50	04-May-2014 05:25
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3511 / 24-Apr-2014 Analyst: RPM	
TPH (Diesel Range)	U		0.020	0.051	mg/L	1	24-Apr-2014 22:19
Surr: 2-Fluorobiphenyl	87.3			60-135	%REC	1	24-Apr-2014 22:19
NITRATE/NITRITE BY E300.0		Method:E300				Analyst: JKP	
Nitrate/Nitrite (as N)	5.21		0.150	1.00	mg/L	5	13-May-2014 05:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
Sample ID: NCL-49-0414-D
Collection Date: 17-Apr-2014 15:05

ANALYTICAL REPORT

WorkOrder:HS14040954
Lab ID:HS14040954-20
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014		Analyst: ALR	
Arsenic	0.00338	J	0.00100	0.00500	mg/L	1	22-May-2014 01:43
Barium	0.0112		0.000900	0.00500	mg/L	1	22-May-2014 01:43
Chromium	U		0.00100	0.00500	mg/L	1	22-May-2014 01:43
Iron	U		0.0780	0.200	mg/L	1	22-May-2014 01:43
Lead	U		0.000700	0.00500	mg/L	1	22-May-2014 01:43
Manganese	U		0.00250	0.00500	mg/L	1	22-May-2014 01:43
Selenium	0.00503		0.00100	0.00500	mg/L	1	22-May-2014 01:43

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: MW-54A-0414
 Collection Date: 17-Apr-2014 14:40

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-21
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:09
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:09
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:09
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 19:09
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:09
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:09
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 19:09
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:09
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	29-Apr-2014 19:09
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:09
2-Butanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 19:09
2-Hexanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 19:09
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:09
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 19:09
Acetone	U		0.0020	0.010	mg/L	1	29-Apr-2014 19:09
Benzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:09
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:09
Bromoform	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:09
Bromomethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:09
Carbon disulfide	U		0.00090	0.010	mg/L	1	29-Apr-2014 19:09
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:09
Chlorobenzene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 19:09
Chloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:09
Chloroform	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:09
Chloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:09
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:09
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:09
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:09
Ethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:09
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:09
m,p-Xylene	U		0.00060	0.010	mg/L	1	29-Apr-2014 19:09
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:09
Methylene chloride	U		0.0010	0.010	mg/L	1	29-Apr-2014 19:09
Naphthalene	U		0.00070	0.0050	mg/L	1	29-Apr-2014 19:09
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	29-Apr-2014 19:09
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:09
o-Xylene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:09
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:09
Styrene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:09
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:09
Toluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:09
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 19:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: MW-54A-0414
 Collection Date: 17-Apr-2014 14:40

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-21
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:09
Trichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:09
Vinyl chloride	U		0.00040	0.0020	mg/L	1	29-Apr-2014 19:09
Xylenes, Total	U		0.0015	0.015	mg/L	1	29-Apr-2014 19:09
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	29-Apr-2014 19:09
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	29-Apr-2014 19:09
Surr: Dibromofluoromethane	102			71-125	%REC	1	29-Apr-2014 19:09
Surr: Toluene-d8	98.1			75-125	%REC	1	29-Apr-2014 19:09
ICP-MS METALS BY SW6020A		Method:SW6020				Prep:SW3010A / 05-May-2014 Analyst: SKS	
Arsenic	0.00532		0.00100	0.00500	mg/L	1	19-May-2014 18:50
Barium	0.0181		0.000900	0.00500	mg/L	1	19-May-2014 18:50
Calcium	354		0.670	5.00	mg/L	10	20-May-2014 14:04
Chromium	U		0.00100	0.00500	mg/L	1	19-May-2014 18:50
Iron	0.0714	J	0.0500	0.200	mg/L	1	19-May-2014 18:50
Lead	0.000847	J	0.000700	0.00500	mg/L	1	19-May-2014 18:50
Manganese	0.495		0.00250	0.00500	mg/L	1	19-May-2014 18:50
Potassium	0.275		0.0500	0.200	mg/L	1	19-May-2014 18:50
Selenium	0.00134	J	0.00100	0.00500	mg/L	1	19-May-2014 18:50
Sodium	69.2		0.0500	0.200	mg/L	1	19-May-2014 18:50
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	1,800		5.00	10.0	mg/L	1	23-Apr-2014 18:50
ANIONS BY E300.0		Method:E300				Analyst: JKP	
Chloride	211		10.0	25.0	mg/L	50	04-May-2014 05:51
Fluoride	0.600		0.0500	0.100	mg/L	1	04-May-2014 15:19
Sulfate	666		10.0	25.0	mg/L	50	04-May-2014 05:51
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3511 / 24-Apr-2014 Analyst: RPM	
TPH (Diesel Range)	0.57		0.021	0.052	mg/L	1	24-Apr-2014 22:45
Surr: 2-Fluorobiphenyl	80.1			60-135	%REC	1	24-Apr-2014 22:45
NITRATE/NITRITE BY E300.0		Method:E300				Analyst: JKP	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	13-May-2014 05:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
Sample ID: MW-54A-0414-D
Collection Date: 17-Apr-2014 14:40

ANALYTICAL REPORT

WorkOrder:HS14040954
Lab ID:HS14040954-22
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014		Analyst: ALR	
Arsenic	0.00620		0.00100	0.00500	mg/L	1	22-May-2014 01:48
Barium	0.0182		0.000900	0.00500	mg/L	1	22-May-2014 01:48
Chromium	U		0.00100	0.00500	mg/L	1	22-May-2014 01:48
Iron	U		0.0780	0.200	mg/L	1	22-May-2014 01:48
Lead	U		0.000700	0.00500	mg/L	1	22-May-2014 01:48
Manganese	0.491		0.00250	0.00500	mg/L	1	22-May-2014 01:48
Selenium	0.00228	J	0.00100	0.00500	mg/L	1	22-May-2014 01:48

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: EB-12-0414
 Collection Date: 17-Apr-2014 16:00

ANALYTICAL REPORT

WorkOrder: HS14040954
 Lab ID: HS14040954-23
 Matrix: Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method: SW8260		Analyst: KKP			
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:33
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:33
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:33
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 19:33
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:33
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:33
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 19:33
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:33
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	29-Apr-2014 19:33
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:33
2-Butanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 19:33
2-Hexanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 19:33
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:33
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 19:33
Acetone	U		0.0020	0.010	mg/L	1	29-Apr-2014 19:33
Benzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:33
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:33
Bromoform	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:33
Bromomethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:33
Carbon disulfide	U		0.00090	0.010	mg/L	1	29-Apr-2014 19:33
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:33
Chlorobenzene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 19:33
Chloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:33
Chloroform	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:33
Chloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:33
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:33
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:33
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:33
Ethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:33
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:33
m,p-Xylene	U		0.00060	0.010	mg/L	1	29-Apr-2014 19:33
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:33
Methylene chloride	U		0.0010	0.010	mg/L	1	29-Apr-2014 19:33
Naphthalene	U		0.00070	0.0050	mg/L	1	29-Apr-2014 19:33
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	29-Apr-2014 19:33
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:33
o-Xylene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:33
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:33
Styrene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:33
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:33
Toluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:33
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 19:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: EB-12-0414
 Collection Date: 17-Apr-2014 16:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-23
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:33
Trichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:33
Vinyl chloride	U		0.00040	0.0020	mg/L	1	29-Apr-2014 19:33
Xylenes, Total	U		0.0015	0.015	mg/L	1	29-Apr-2014 19:33
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	1	29-Apr-2014 19:33
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	29-Apr-2014 19:33
Surr: Dibromofluoromethane	101			71-125	%REC	1	29-Apr-2014 19:33
Surr: Toluene-d8	98.8			75-125	%REC	1	29-Apr-2014 19:33
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014		Analyst: SKS	
Arsenic	U		0.00100	0.00500	mg/L	1	19-May-2014 18:52
Barium	U		0.000900	0.00500	mg/L	1	19-May-2014 18:52
Calcium	2.04		0.0670	0.500	mg/L	1	19-May-2014 18:52
Chromium	U		0.00100	0.00500	mg/L	1	19-May-2014 18:52
Iron	U		0.0500	0.200	mg/L	1	19-May-2014 18:52
Lead	U		0.000700	0.00500	mg/L	1	19-May-2014 18:52
Manganese	U		0.00250	0.00500	mg/L	1	19-May-2014 18:52
Nickel	U		0.00100	0.00500	mg/L	1	19-May-2014 18:52
Potassium	U		0.0500	0.200	mg/L	1	19-May-2014 18:52
Selenium	0.00118	J	0.00100	0.00500	mg/L	1	19-May-2014 18:52
Sodium	0.302		0.0500	0.200	mg/L	1	19-May-2014 18:52
Vanadium	0.00353	J	0.000900	0.00500	mg/L	1	19-May-2014 18:52
CYANIDE BY SW9012B		Method:SW9012		Prep:SW9010C		Analyst: KKB	
Cyanide	U		0.00500	0.0200	mg/L	1	01-May-2014 14:00
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	28-Apr-2014 17:57
Surr: 4-Bromofluorobenzene	116			70-130	%REC	1	28-Apr-2014 17:57
MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 14-May-2014		Analyst: JCJ	
Mercury	U		0.0000400	0.000200	mg/L	1	14-May-2014 15:25
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	U		5.00	10.0	mg/L	1	23-Apr-2014 18:50
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	U		0.200	0.500	mg/L	1	04-May-2014 15:45
Fluoride	U		0.0500	0.100	mg/L	1	04-May-2014 15:45
Sulfate	0.309	J	0.200	0.500	mg/L	1	04-May-2014 15:45
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 24-Apr-2014		Analyst: RPM	
TPH (Diesel Range)	U		0.021	0.052	mg/L	1	24-Apr-2014 23:11
Surr: 2-Fluorobiphenyl	67.1			60-135	%REC	1	24-Apr-2014 23:11
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	13-May-2014 06:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: EB-12-0414-D
 Collection Date: 17-Apr-2014 16:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-24
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014		Analyst: ALR	
Arsenic	U		0.00100	0.00500	mg/L	1	22-May-2014 02:01
Barium	U		0.000900	0.00500	mg/L	1	22-May-2014 02:01
Chromium	U		0.00100	0.00500	mg/L	1	22-May-2014 02:01
Iron	U		0.0780	0.200	mg/L	1	22-May-2014 02:01
Lead	U		0.000700	0.00500	mg/L	1	22-May-2014 02:01
Manganese	U		0.00250	0.00500	mg/L	1	22-May-2014 02:01
Nickel	U		0.00100	0.00500	mg/L	1	22-May-2014 02:01
Selenium	U		0.00100	0.00500	mg/L	1	22-May-2014 02:01
Vanadium	U		0.000900	0.00500	mg/L	1	22-May-2014 02:01
DISSOLVED MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 02-May-2014		Analyst: JCJ	
Mercury	U		0.0000420	0.000200	mg/L	1	02-May-2014 17:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: UG-3R-0414
 Collection Date: 17-Apr-2014 08:15

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-25
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:57
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:57
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:57
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 19:57
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:57
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:57
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 19:57
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:57
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	29-Apr-2014 19:57
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:57
2-Butanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 19:57
2-Hexanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 19:57
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:57
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 19:57
Acetone	U		0.0020	0.010	mg/L	1	29-Apr-2014 19:57
Benzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:57
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:57
Bromoform	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:57
Bromomethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:57
Carbon disulfide	U		0.00090	0.010	mg/L	1	29-Apr-2014 19:57
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:57
Chlorobenzene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 19:57
Chloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:57
Chloroform	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:57
Chloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:57
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:57
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:57
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:57
Ethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:57
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:57
m,p-Xylene	U		0.00060	0.010	mg/L	1	29-Apr-2014 19:57
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:57
Methylene chloride	U		0.0010	0.010	mg/L	1	29-Apr-2014 19:57
Naphthalene	U		0.00070	0.0050	mg/L	1	29-Apr-2014 19:57
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	29-Apr-2014 19:57
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:57
o-Xylene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:57
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:57
Styrene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:57
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:57
Toluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:57
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 19:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: UG-3R-0414
 Collection Date: 17-Apr-2014 08:15

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-25
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 19:57
Trichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 19:57
Vinyl chloride	U		0.00040	0.0020	mg/L	1	29-Apr-2014 19:57
Xylenes, Total	U		0.0015	0.015	mg/L	1	29-Apr-2014 19:57
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	1	29-Apr-2014 19:57
Surr: 4-Bromofluorobenzene	99.6			72-125	%REC	1	29-Apr-2014 19:57
Surr: Dibromofluoromethane	101			71-125	%REC	1	29-Apr-2014 19:57
Surr: Toluene-d8	97.1			75-125	%REC	1	29-Apr-2014 19:57
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014 Analyst: SKS			
Arsenic	0.00184	J	0.00100	0.00500	mg/L	1	19-May-2014 18:55
Barium	0.0170		0.000900	0.00500	mg/L	1	19-May-2014 18:55
Calcium	422		0.670	5.00	mg/L	10	20-May-2014 14:06
Chromium	U		0.00100	0.00500	mg/L	1	19-May-2014 18:55
Iron	U		0.0500	0.200	mg/L	1	19-May-2014 18:55
Lead	U		0.000700	0.00500	mg/L	1	19-May-2014 18:55
Manganese	U		0.00250	0.00500	mg/L	1	19-May-2014 18:55
Nickel	U		0.00100	0.00500	mg/L	1	19-May-2014 18:55
Potassium	1.65		0.0500	0.200	mg/L	1	19-May-2014 18:55
Selenium	0.00534		0.00100	0.00500	mg/L	1	19-May-2014 18:55
Sodium	56.9		0.0500	0.200	mg/L	1	19-May-2014 18:55
Vanadium	0.0109		0.000900	0.00500	mg/L	1	19-May-2014 18:55
CYANIDE BY SW9012B		Method:SW9012		Prep:SW9010C Analyst: KKB			
Cyanide	U		0.00500	0.0200	mg/L	1	01-May-2014 14:00
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	28-Apr-2014 18:16
Surr: 4-Bromofluorobenzene	117			70-130	%REC	1	28-Apr-2014 18:16
MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 05-May-2014 Analyst: JCJ			
Mercury	U		0.0000400	0.000200	mg/L	1	05-May-2014 17:37
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	2,340		5.00	10.0	mg/L	1	23-Apr-2014 18:50
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	46.8		0.200	0.500	mg/L	1	04-May-2014 16:11
Fluoride	0.492		0.0500	0.100	mg/L	1	04-May-2014 16:11
Sulfate	1,480		10.0	25.0	mg/L	50	04-May-2014 06:17
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 24-Apr-2014 Analyst: RPM			
TPH (Diesel Range)	U		0.020	0.051	mg/L	1	24-Apr-2014 23:37
Surr: 2-Fluorobiphenyl	60.6			60-135	%REC	1	24-Apr-2014 23:37
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	2.26		0.150	1.00	mg/L	5	13-May-2014 06:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: UG-3R-0414-D
 Collection Date: 17-Apr-2014 08:15

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-26
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014		Analyst: ALR	
Arsenic	0.00253	J	0.00100	0.00500	mg/L	1	22-May-2014 02:05
Barium	0.0175		0.000900	0.00500	mg/L	1	22-May-2014 02:05
Chromium	U		0.00100	0.00500	mg/L	1	22-May-2014 02:05
Iron	U		0.0780	0.200	mg/L	1	22-May-2014 02:05
Lead	U		0.000700	0.00500	mg/L	1	22-May-2014 02:05
Manganese	U		0.00250	0.00500	mg/L	1	22-May-2014 02:05
Nickel	U		0.00100	0.00500	mg/L	1	22-May-2014 02:05
Selenium	0.00422	J	0.00100	0.00500	mg/L	1	22-May-2014 20:44
Vanadium	0.00799		0.000900	0.00500	mg/L	1	22-May-2014 02:05
DISSOLVED MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 02-May-2014		Analyst: JCJ	
Mercury	U		0.0000420	0.000200	mg/L	1	02-May-2014 17:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: Dup-9-0414
 Collection Date: 17-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-27
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:21
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:21
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:21
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 20:21
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:21
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:21
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 20:21
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:21
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	29-Apr-2014 20:21
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:21
2-Butanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 20:21
2-Hexanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 20:21
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:21
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 20:21
Acetone	U		0.0020	0.010	mg/L	1	29-Apr-2014 20:21
Benzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:21
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:21
Bromoform	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:21
Bromomethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:21
Carbon disulfide	U		0.00090	0.010	mg/L	1	29-Apr-2014 20:21
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:21
Chlorobenzene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 20:21
Chloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:21
Chloroform	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:21
Chloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:21
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:21
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:21
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:21
Ethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:21
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:21
m,p-Xylene	U		0.00060	0.010	mg/L	1	29-Apr-2014 20:21
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:21
Methylene chloride	U		0.0010	0.010	mg/L	1	29-Apr-2014 20:21
Naphthalene	U		0.00070	0.0050	mg/L	1	29-Apr-2014 20:21
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	29-Apr-2014 20:21
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:21
o-Xylene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:21
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:21
Styrene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:21
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:21
Toluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:21
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 20:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: Dup-9-0414
 Collection Date: 17-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-27
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:21
Trichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:21
Vinyl chloride	U		0.00040	0.0020	mg/L	1	29-Apr-2014 20:21
Xylenes, Total	U		0.0015	0.015	mg/L	1	29-Apr-2014 20:21
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	29-Apr-2014 20:21
Surr: 4-Bromofluorobenzene	100			72-125	%REC	1	29-Apr-2014 20:21
Surr: Dibromofluoromethane	103			71-125	%REC	1	29-Apr-2014 20:21
Surr: Toluene-d8	96.8			75-125	%REC	1	29-Apr-2014 20:21
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014 Analyst: SKS			
Arsenic	0.00167	J	0.00100	0.00500	mg/L	1	19-May-2014 18:57
Barium	0.0163		0.000900	0.00500	mg/L	1	19-May-2014 18:57
Calcium	389		0.670	5.00	mg/L	10	20-May-2014 14:09
Chromium	U		0.00100	0.00500	mg/L	1	19-May-2014 18:57
Iron	U		0.0500	0.200	mg/L	1	19-May-2014 18:57
Lead	U		0.000700	0.00500	mg/L	1	19-May-2014 18:57
Manganese	U		0.00250	0.00500	mg/L	1	19-May-2014 18:57
Nickel	U		0.00100	0.00500	mg/L	1	19-May-2014 18:57
Potassium	1.53		0.0500	0.200	mg/L	1	19-May-2014 18:57
Selenium	0.00640		0.00100	0.00500	mg/L	1	19-May-2014 18:57
Sodium	53.6		0.0500	0.200	mg/L	1	19-May-2014 18:57
Vanadium	0.0101		0.000900	0.00500	mg/L	1	19-May-2014 18:57
CYANIDE BY SW9012B		Method:SW9012		Prep:SW9010C Analyst: KKB			
Cyanide	U		0.00500	0.0200	mg/L	1	01-May-2014 14:00
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	28-Apr-2014 18:34
Surr: 4-Bromofluorobenzene	117			70-130	%REC	1	28-Apr-2014 18:34
MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 05-May-2014 Analyst: JCJ			
Mercury	U		0.0000400	0.000200	mg/L	1	05-May-2014 17:39
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	2,400		5.00	10.0	mg/L	1	23-Apr-2014 18:50
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	46.8		0.200	0.500	mg/L	1	04-May-2014 16:36
Fluoride	0.496		0.0500	0.100	mg/L	1	04-May-2014 16:36
Sulfate	1,500		10.0	25.0	mg/L	50	04-May-2014 06:43
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 24-Apr-2014 Analyst: RPM			
TPH (Diesel Range)	U		0.020	0.051	mg/L	1	25-Apr-2014 00:03
Surr: 2-Fluorobiphenyl	61.3			60-135	%REC	1	25-Apr-2014 00:03
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	2.20		0.150	1.00	mg/L	5	13-May-2014 06:42

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: Dup-9-0414-D
 Collection Date: 17-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-28
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014		Analyst: ALR	
Arsenic	0.00310	J	0.00100	0.00500	mg/L	1	22-May-2014 02:10
Barium	0.0172		0.000900	0.00500	mg/L	1	22-May-2014 02:10
Chromium	U		0.00100	0.00500	mg/L	1	22-May-2014 02:10
Iron	U		0.0780	0.200	mg/L	1	22-May-2014 02:10
Lead	U		0.000700	0.00500	mg/L	1	22-May-2014 02:10
Manganese	U		0.00250	0.00500	mg/L	1	22-May-2014 02:10
Nickel	U		0.00100	0.00500	mg/L	1	22-May-2014 02:10
Selenium	0.00460	J	0.00100	0.00500	mg/L	1	22-May-2014 20:48
Vanadium	0.00834		0.000900	0.00500	mg/L	1	22-May-2014 02:10
DISSOLVED MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 02-May-2014		Analyst: JCJ	
Mercury	U		0.0000420	0.000200	mg/L	1	02-May-2014 17:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: UG-1-0414
 Collection Date: 18-Apr-2014 09:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-29
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:45
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:45
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:45
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 20:45
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:45
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:45
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 20:45
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:45
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	29-Apr-2014 20:45
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:45
2-Butanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 20:45
2-Hexanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 20:45
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:45
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 20:45
Acetone	U		0.0020	0.010	mg/L	1	29-Apr-2014 20:45
Benzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:45
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:45
Bromoform	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:45
Bromomethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:45
Carbon disulfide	U		0.00090	0.010	mg/L	1	29-Apr-2014 20:45
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:45
Chlorobenzene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 20:45
Chloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:45
Chloroform	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:45
Chloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:45
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:45
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:45
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:45
Ethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:45
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:45
m,p-Xylene	U		0.00060	0.010	mg/L	1	29-Apr-2014 20:45
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:45
Methylene chloride	U		0.0010	0.010	mg/L	1	29-Apr-2014 20:45
Naphthalene	U		0.00070	0.0050	mg/L	1	29-Apr-2014 20:45
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	29-Apr-2014 20:45
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:45
o-Xylene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:45
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:45
Styrene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:45
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:45
Toluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:45
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 20:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: UG-1-0414
 Collection Date: 18-Apr-2014 09:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-29
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 20:45
Trichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 20:45
Vinyl chloride	U		0.00040	0.0020	mg/L	1	29-Apr-2014 20:45
Xylenes, Total	U		0.0015	0.015	mg/L	1	29-Apr-2014 20:45
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	29-Apr-2014 20:45
Surr: 4-Bromofluorobenzene	99.5			72-125	%REC	1	29-Apr-2014 20:45
Surr: Dibromofluoromethane	102			71-125	%REC	1	29-Apr-2014 20:45
Surr: Toluene-d8	97.5			75-125	%REC	1	29-Apr-2014 20:45
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014 Analyst: SKS			
Arsenic	0.00158	J	0.00100	0.00500	mg/L	1	19-May-2014 19:00
Barium	0.0128		0.000900	0.00500	mg/L	1	19-May-2014 19:00
Calcium	474		0.670	5.00	mg/L	10	20-May-2014 14:11
Chromium	0.00159	J	0.00100	0.00500	mg/L	1	19-May-2014 19:00
Iron	0.0832	J	0.0500	0.200	mg/L	1	19-May-2014 19:00
Lead	U		0.000700	0.00500	mg/L	1	19-May-2014 19:00
Manganese	0.00575		0.00250	0.00500	mg/L	1	19-May-2014 19:00
Nickel	0.00121	J	0.00100	0.00500	mg/L	1	19-May-2014 19:00
Potassium	1.59		0.0500	0.200	mg/L	1	19-May-2014 19:00
Selenium	0.00728		0.00100	0.00500	mg/L	1	19-May-2014 19:00
Sodium	79.6		0.0500	0.200	mg/L	1	19-May-2014 19:00
Vanadium	0.0135		0.000900	0.00500	mg/L	1	19-May-2014 19:00
CYANIDE BY SW9012B		Method:SW9012		Prep:SW9010C Analyst: KKB			
Cyanide	U		0.00500	0.0200	mg/L	1	01-May-2014 14:00
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	29-Apr-2014 15:53
Surr: 4-Bromofluorobenzene	117			70-130	%REC	1	29-Apr-2014 15:53
MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 05-May-2014 Analyst: JCJ			
Mercury	U		0.0000400	0.000200	mg/L	1	05-May-2014 17:41
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	2,960		5.00	10.0	mg/L	1	25-Apr-2014 18:30
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	126		10.0	25.0	mg/L	50	04-May-2014 07:08
Fluoride	0.580		0.0500	0.100	mg/L	1	04-May-2014 17:02
Sulfate	1,720		10.0	25.0	mg/L	50	04-May-2014 07:08
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 24-Apr-2014 Analyst: RPM			
TPH (Diesel Range)	U		0.021	0.052	mg/L	1	25-Apr-2014 00:29
Surr: 2-Fluorobiphenyl	60.7			60-135	%REC	1	25-Apr-2014 00:29
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	10.1		0.150	1.00	mg/L	5	13-May-2014 07:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: UG-1-0414-D
 Collection Date: 18-Apr-2014 09:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-30
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014		Analyst: ALR	
Arsenic	0.00288	J	0.00100	0.00500	mg/L	1	22-May-2014 02:14
Barium	0.0120		0.000900	0.00500	mg/L	1	22-May-2014 02:14
Chromium	0.00187	J	0.00100	0.00500	mg/L	1	22-May-2014 02:14
Iron	U		0.0780	0.200	mg/L	1	22-May-2014 02:14
Lead	U		0.000700	0.00500	mg/L	1	22-May-2014 02:14
Manganese	U		0.00250	0.00500	mg/L	1	22-May-2014 02:14
Nickel	U		0.00100	0.00500	mg/L	1	22-May-2014 02:14
Selenium	0.00635		0.00100	0.00500	mg/L	1	22-May-2014 20:57
Vanadium	0.0107		0.000900	0.00500	mg/L	1	22-May-2014 02:14
DISSOLVED MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 02-May-2014		Analyst: JCJ	
Mercury	U		0.0000420	0.000200	mg/L	1	02-May-2014 17:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: UG-2-0414
 Collection Date: 18-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-31
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:09
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:09
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:09
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 21:09
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:09
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:09
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 21:09
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:09
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	29-Apr-2014 21:09
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:09
2-Butanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 21:09
2-Hexanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 21:09
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:09
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 21:09
Acetone	U		0.0020	0.010	mg/L	1	29-Apr-2014 21:09
Benzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:09
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:09
Bromoform	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:09
Bromomethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:09
Carbon disulfide	U		0.00090	0.010	mg/L	1	29-Apr-2014 21:09
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:09
Chlorobenzene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 21:09
Chloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:09
Chloroform	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:09
Chloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:09
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:09
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:09
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:09
Ethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:09
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:09
m,p-Xylene	U		0.00060	0.010	mg/L	1	29-Apr-2014 21:09
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:09
Methylene chloride	U		0.0010	0.010	mg/L	1	29-Apr-2014 21:09
Naphthalene	U		0.00070	0.0050	mg/L	1	29-Apr-2014 21:09
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	29-Apr-2014 21:09
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:09
o-Xylene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:09
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:09
Styrene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:09
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:09
Toluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:09
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 21:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: UG-2-0414
 Collection Date: 18-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-31
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:09
Trichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:09
Vinyl chloride	U		0.00040	0.0020	mg/L	1	29-Apr-2014 21:09
Xylenes, Total	U		0.0015	0.015	mg/L	1	29-Apr-2014 21:09
Surr: 1,2-Dichloroethane-d4	106			70-125	%REC	1	29-Apr-2014 21:09
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	29-Apr-2014 21:09
Surr: Dibromofluoromethane	104			71-125	%REC	1	29-Apr-2014 21:09
Surr: Toluene-d8	98.7			75-125	%REC	1	29-Apr-2014 21:09
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014 Analyst: SKS			
Arsenic	0.00385	J	0.00100	0.00500	mg/L	1	19-May-2014 19:02
Barium	0.0167		0.000900	0.00500	mg/L	1	19-May-2014 19:02
Calcium	403		0.670	5.00	mg/L	10	20-May-2014 14:14
Chromium	U		0.00100	0.00500	mg/L	1	19-May-2014 19:02
Iron	0.673		0.0500	0.200	mg/L	1	19-May-2014 19:02
Lead	U		0.000700	0.00500	mg/L	1	19-May-2014 19:02
Manganese	0.488		0.00250	0.00500	mg/L	1	19-May-2014 19:02
Nickel	0.0256		0.00100	0.00500	mg/L	1	19-May-2014 19:02
Potassium	1.75		0.0500	0.200	mg/L	1	19-May-2014 19:02
Selenium	0.00209	J	0.00100	0.00500	mg/L	1	19-May-2014 19:02
Sodium	104		0.0500	0.200	mg/L	1	19-May-2014 19:02
Vanadium	0.00820		0.000900	0.00500	mg/L	1	19-May-2014 19:02
CYANIDE BY SW9012B		Method:SW9012		Prep:SW9010C Analyst: KKB			
Cyanide	U		0.00500	0.0200	mg/L	1	01-May-2014 14:00
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	29-Apr-2014 16:49
Surr: 4-Bromofluorobenzene	116			70-130	%REC	1	29-Apr-2014 16:49
MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 05-May-2014 Analyst: JCJ			
Mercury	U		0.0000400	0.000200	mg/L	1	05-May-2014 17:46
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	2,660		5.00	10.0	mg/L	1	25-Apr-2014 18:30
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	97.1		10.0	25.0	mg/L	50	04-May-2014 07:34
Fluoride	1.14		0.0500	0.100	mg/L	1	04-May-2014 17:28
Sulfate	1,530		10.0	25.0	mg/L	50	04-May-2014 07:34
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 24-Apr-2014 Analyst: RPM			
TPH (Diesel Range)	U		0.020	0.051	mg/L	1	25-Apr-2014 00:55
Surr: 2-Fluorobiphenyl	63.1			60-135	%REC	1	25-Apr-2014 00:55
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	3.77		0.150	1.00	mg/L	5	13-May-2014 08:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: UG-2-0414-D
 Collection Date: 18-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-32
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014		Analyst: ALR	
Arsenic	0.00625		0.00100	0.00500	mg/L	1	22-May-2014 02:19
Barium	0.0147		0.000900	0.00500	mg/L	1	22-May-2014 02:19
Chromium	U		0.00100	0.00500	mg/L	1	22-May-2014 02:19
Iron	0.334		0.0780	0.200	mg/L	1	22-May-2014 02:19
Lead	U		0.000700	0.00500	mg/L	1	22-May-2014 02:19
Manganese	0.346		0.00250	0.00500	mg/L	1	22-May-2014 02:19
Nickel	0.0537		0.00100	0.00500	mg/L	1	22-May-2014 02:19
Selenium	0.00369	J	0.00100	0.00500	mg/L	1	22-May-2014 21:06
Vanadium	0.0142		0.000900	0.00500	mg/L	1	22-May-2014 02:19
DISSOLVED MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 02-May-2014		Analyst: JCJ	
Mercury	U		0.0000420	0.000200	mg/L	1	02-May-2014 17:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: MW-53-0414
 Collection Date: 18-Apr-2014 10:30

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-33
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:33
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:33
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:33
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 21:33
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:33
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:33
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 21:33
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:33
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	29-Apr-2014 21:33
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:33
2-Butanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 21:33
2-Hexanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 21:33
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:33
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 21:33
Acetone	U		0.0020	0.010	mg/L	1	29-Apr-2014 21:33
Benzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:33
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:33
Bromoform	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:33
Bromomethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:33
Carbon disulfide	U		0.00090	0.010	mg/L	1	29-Apr-2014 21:33
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:33
Chlorobenzene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 21:33
Chloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:33
Chloroform	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:33
Chloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:33
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:33
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:33
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:33
Ethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:33
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:33
m,p-Xylene	U		0.00060	0.010	mg/L	1	29-Apr-2014 21:33
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:33
Methylene chloride	U		0.0010	0.010	mg/L	1	29-Apr-2014 21:33
Naphthalene	U		0.00070	0.0050	mg/L	1	29-Apr-2014 21:33
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	29-Apr-2014 21:33
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:33
o-Xylene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:33
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:33
Styrene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:33
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:33
Toluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:33
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 21:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: MW-53-0414
 Collection Date: 18-Apr-2014 10:30

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-33
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:33
Trichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:33
Vinyl chloride	U		0.00040	0.0020	mg/L	1	29-Apr-2014 21:33
Xylenes, Total	U		0.0015	0.015	mg/L	1	29-Apr-2014 21:33
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	29-Apr-2014 21:33
Surr: 4-Bromofluorobenzene	98.9			72-125	%REC	1	29-Apr-2014 21:33
Surr: Dibromofluoromethane	102			71-125	%REC	1	29-Apr-2014 21:33
Surr: Toluene-d8	96.3			75-125	%REC	1	29-Apr-2014 21:33
ICP-MS METALS BY SW6020A		Method:SW6020				Prep:SW3010A / 05-May-2014 Analyst: SKS	
Arsenic	0.00217	J	0.00100	0.00500	mg/L	1	19-May-2014 19:05
Barium	0.0232		0.000900	0.00500	mg/L	1	19-May-2014 19:05
Calcium	290		0.670	5.00	mg/L	10	20-May-2014 14:16
Chromium	U		0.00100	0.00500	mg/L	1	19-May-2014 19:05
Iron	U		0.0500	0.200	mg/L	1	19-May-2014 19:05
Lead	U		0.000700	0.00500	mg/L	1	19-May-2014 19:05
Manganese	0.778		0.00250	0.00500	mg/L	1	19-May-2014 19:05
Potassium	0.935		0.0500	0.200	mg/L	1	19-May-2014 19:05
Selenium	0.00141	J	0.00100	0.00500	mg/L	1	19-May-2014 19:05
Sodium	87.6		0.0500	0.200	mg/L	1	19-May-2014 19:05
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	2,060		5.00	10.0	mg/L	1	25-Apr-2014 18:30
ANIONS BY E300.0		Method:E300				Analyst: JKP	
Chloride	95.4		10.0	25.0	mg/L	50	04-May-2014 08:00
Fluoride	0.827		0.0500	0.100	mg/L	1	04-May-2014 17:54
Sulfate	1,190		10.0	25.0	mg/L	50	04-May-2014 08:00
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3511 / 24-Apr-2014 Analyst: RPM	
TPH (Diesel Range)	U		0.021	0.052	mg/L	1	25-Apr-2014 01:21
Surr: 2-Fluorobiphenyl	60.6			60-135	%REC	1	25-Apr-2014 01:21
NITRATE/NITRITE BY E300.0		Method:E300				Analyst: JKP	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	13-May-2014 08:24

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
Sample ID: MW-53-0414-D
Collection Date: 18-Apr-2014 10:30

ANALYTICAL REPORT

WorkOrder:HS14040954
Lab ID:HS14040954-34
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014		Analyst: ALR	
Arsenic	0.00316	J	0.00100	0.00500	mg/L	1	22-May-2014 02:23
Barium	0.0213		0.000900	0.00500	mg/L	1	22-May-2014 02:23
Chromium	U		0.00100	0.00500	mg/L	1	22-May-2014 02:23
Iron	U		0.0780	0.200	mg/L	1	22-May-2014 02:23
Lead	U		0.000700	0.00500	mg/L	1	22-May-2014 02:23
Manganese	0.532		0.00250	0.00500	mg/L	1	22-May-2014 02:23
Selenium	0.00135	J	0.00100	0.00500	mg/L	1	22-May-2014 02:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: EB-13-0414
 Collection Date: 18-Apr-2014 11:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-35
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:57
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:57
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:57
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 21:57
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:57
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:57
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	29-Apr-2014 21:57
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:57
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	29-Apr-2014 21:57
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:57
2-Butanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 21:57
2-Hexanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 21:57
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:57
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	29-Apr-2014 21:57
Acetone	U		0.0020	0.010	mg/L	1	29-Apr-2014 21:57
Benzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:57
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:57
Bromoform	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:57
Bromomethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:57
Carbon disulfide	U		0.00090	0.010	mg/L	1	29-Apr-2014 21:57
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:57
Chlorobenzene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 21:57
Chloroethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:57
Chloroform	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:57
Chloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:57
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:57
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:57
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:57
Ethylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:57
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:57
m,p-Xylene	U		0.00060	0.010	mg/L	1	29-Apr-2014 21:57
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:57
Methylene chloride	U		0.0010	0.010	mg/L	1	29-Apr-2014 21:57
Naphthalene	U		0.00070	0.0050	mg/L	1	29-Apr-2014 21:57
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	29-Apr-2014 21:57
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:57
o-Xylene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:57
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:57
Styrene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:57
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:57
Toluene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:57
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	29-Apr-2014 21:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: EB-13-0414
 Collection Date: 18-Apr-2014 11:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-35
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	29-Apr-2014 21:57
Trichloroethene	U		0.00050	0.0050	mg/L	1	29-Apr-2014 21:57
Vinyl chloride	U		0.00040	0.0020	mg/L	1	29-Apr-2014 21:57
Xylenes, Total	U		0.0015	0.015	mg/L	1	29-Apr-2014 21:57
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	29-Apr-2014 21:57
Surr: 4-Bromofluorobenzene	98.6			72-125	%REC	1	29-Apr-2014 21:57
Surr: Dibromofluoromethane	102			71-125	%REC	1	29-Apr-2014 21:57
Surr: Toluene-d8	96.5			75-125	%REC	1	29-Apr-2014 21:57
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014 Analyst: SKS			
Arsenic	U		0.00100	0.00500	mg/L	1	19-May-2014 19:07
Barium	U		0.000900	0.00500	mg/L	1	19-May-2014 19:07
Calcium	1.65		0.0670	0.500	mg/L	1	19-May-2014 19:07
Chromium	U		0.00100	0.00500	mg/L	1	19-May-2014 19:07
Iron	U		0.0500	0.200	mg/L	1	19-May-2014 19:07
Lead	U		0.000700	0.00500	mg/L	1	19-May-2014 19:07
Manganese	U		0.00250	0.00500	mg/L	1	19-May-2014 19:07
Nickel	U		0.00100	0.00500	mg/L	1	19-May-2014 19:07
Potassium	U		0.0500	0.200	mg/L	1	19-May-2014 19:07
Selenium	0.00136	J	0.00100	0.00500	mg/L	1	19-May-2014 19:07
Sodium	0.356		0.0500	0.200	mg/L	1	19-May-2014 19:07
Vanadium	0.00616		0.000900	0.00500	mg/L	1	19-May-2014 19:07
CYANIDE BY SW9012B		Method:SW9012		Prep:SW9010C Analyst: KKB			
Cyanide	U		0.00500	0.0200	mg/L	1	01-May-2014 14:00
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	29-Apr-2014 17:07
Surr: 4-Bromofluorobenzene	112			70-130	%REC	1	29-Apr-2014 17:07
MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 05-May-2014 Analyst: JCJ			
Mercury	U		0.0000400	0.000200	mg/L	1	05-May-2014 17:48
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	U		5.00	10.0	mg/L	1	25-Apr-2014 18:30
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	U		0.200	0.500	mg/L	1	04-May-2014 18:20
Fluoride	U		0.0500	0.100	mg/L	1	04-May-2014 18:20
Sulfate	U		0.200	0.500	mg/L	1	04-May-2014 18:20
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 24-Apr-2014 Analyst: RPM			
TPH (Diesel Range)	U		0.021	0.054	mg/L	1	25-Apr-2014 01:48
Surr: 2-Fluorobiphenyl	69.6			60-135	%REC	1	25-Apr-2014 01:48
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	13-May-2014 08:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: EB-13-0414-D
 Collection Date: 18-Apr-2014 11:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-36
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 05-May-2014		Analyst: ALR	
Arsenic	0.00140	J	0.00100	0.00500	mg/L	1	22-May-2014 02:27
Barium	U		0.000900	0.00500	mg/L	1	22-May-2014 02:27
Chromium	U		0.00100	0.00500	mg/L	1	22-May-2014 02:27
Iron	0.188	J	0.0780	0.200	mg/L	1	22-May-2014 02:27
Lead	U		0.000700	0.00500	mg/L	1	22-May-2014 02:27
Manganese	U		0.00250	0.00500	mg/L	1	22-May-2014 02:27
Nickel	U		0.00100	0.00500	mg/L	1	22-May-2014 02:27
Selenium	0.00106	J	0.00100	0.00500	mg/L	1	22-May-2014 02:27
Vanadium	U		0.000900	0.00500	mg/L	1	22-May-2014 02:27
DISSOLVED MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 02-May-2014		Analyst: JCJ	
Mercury	U		0.0000420	0.000200	mg/L	1	02-May-2014 17:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: SA Artesia Refinery - NCL
 Sample ID: TB-032814-05
 Collection Date: 18-Apr-2014 10:00

ANALYTICAL REPORT

WorkOrder:HS14040954
 Lab ID:HS14040954-37
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:01
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:01
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:01
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 17:01
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:01
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:01
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 17:01
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:01
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	30-Apr-2014 17:01
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:01
2-Butanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 17:01
2-Hexanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 17:01
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:01
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 17:01
Acetone	U		0.0020	0.010	mg/L	1	30-Apr-2014 17:01
Benzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:01
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:01
Bromoform	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:01
Bromomethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:01
Carbon disulfide	U		0.00090	0.010	mg/L	1	30-Apr-2014 17:01
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:01
Chlorobenzene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 17:01
Chloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:01
Chloroform	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:01
Chloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:01
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:01
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:01
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:01
Ethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:01
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:01
m,p-Xylene	U		0.00060	0.010	mg/L	1	30-Apr-2014 17:01
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:01
Methylene chloride	U		0.0010	0.010	mg/L	1	30-Apr-2014 17:01
Naphthalene	U		0.00070	0.0050	mg/L	1	30-Apr-2014 17:01
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	30-Apr-2014 17:01
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:01
o-Xylene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:01
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:01
Styrene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:01
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:01
Toluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:01
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 17:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
Sample ID: TB-032814-05
Collection Date: 18-Apr-2014 10:00

ANALYTICAL REPORT

WorkOrder:HS14040954
Lab ID:HS14040954-37
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:01
Trichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:01
Vinyl chloride	U		0.00040	0.0020	mg/L	1	30-Apr-2014 17:01
Xylenes, Total	U		0.0015	0.015	mg/L	1	30-Apr-2014 17:01
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	30-Apr-2014 17:01
Surr: 4-Bromofluorobenzene	98.6			72-125	%REC	1	30-Apr-2014 17:01
Surr: Dibromofluoromethane	104			71-125	%REC	1	30-Apr-2014 17:01
Surr: Toluene-d8	96.0			75-125	%REC	1	30-Apr-2014 17:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
WorkOrder: HS14040954

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 81175	Test Name : TPH DRO/ORO BY SW8015C			Matrix: Water		
HS14040954-01	NCL-31-0414	17 Apr 2014 09:15		24 Apr 2014 09:00	24 Apr 2014 17:30	1
HS14040954-03	MW-108-0414	17 Apr 2014 09:50		24 Apr 2014 09:00	24 Apr 2014 17:57	1
HS14040954-05	NCL-44-0414	17 Apr 2014 10:45		24 Apr 2014 09:00	24 Apr 2014 18:23	1
HS14040954-07	NCL-33-0414	17 Apr 2014 11:25		24 Apr 2014 09:00	24 Apr 2014 18:49	1
HS14040954-09	MW-18-0414	17 Apr 2014 12:05		24 Apr 2014 09:00	24 Apr 2014 19:16	1
HS14040954-11	MW-55-0414	17 Apr 2014 12:45		24 Apr 2014 09:00	24 Apr 2014 19:42	1
HS14040954-13	Dup-08-0414	17 Apr 2014 00:00		24 Apr 2014 09:00	24 Apr 2014 20:08	1
HS14040954-15	MW-56-0414	17 Apr 2014 13:15		24 Apr 2014 09:00	24 Apr 2014 21:27	1
HS14040954-17	MW-45-0414	17 Apr 2014 14:00		24 Apr 2014 09:00	24 Apr 2014 21:53	1
HS14040954-19	NCL-49-0414	17 Apr 2014 15:05		24 Apr 2014 09:00	24 Apr 2014 22:19	1
HS14040954-21	MW-54A-0414	17 Apr 2014 14:40		24 Apr 2014 09:00	24 Apr 2014 22:45	1
HS14040954-23	EB-12-0414	17 Apr 2014 16:00		24 Apr 2014 09:00	24 Apr 2014 23:11	1
HS14040954-25	UG-3R-0414	17 Apr 2014 08:15		24 Apr 2014 09:00	24 Apr 2014 23:37	1
HS14040954-27	Dup-9-0414	17 Apr 2014 00:00		24 Apr 2014 09:00	25 Apr 2014 00:03	1
HS14040954-29	UG-1-0414	18 Apr 2014 09:00		24 Apr 2014 09:00	25 Apr 2014 00:29	1
HS14040954-31	UG-2-0414	18 Apr 2014 00:00		24 Apr 2014 09:00	25 Apr 2014 00:55	1
HS14040954-33	MW-53-0414	18 Apr 2014 10:30		24 Apr 2014 09:00	25 Apr 2014 01:21	1
HS14040954-35	EB-13-0414	18 Apr 2014 11:00		24 Apr 2014 09:00	25 Apr 2014 01:48	1
Batch ID 81476	Test Name : DISSOLVED METALS BY SW6020A			Matrix: Water		
HS14040954-02	NCL-31-0414-D	17 Apr 2014 09:15		01 May 2014 10:00	15 May 2014 16:48	10
HS14040954-02	NCL-31-0414-D	17 Apr 2014 09:15		01 May 2014 10:00	15 May 2014 03:21	1
HS14040954-04	MW-108-0414-D	17 Apr 2014 09:50		01 May 2014 10:00	15 May 2014 03:25	1
HS14040954-06	NCL-44-0414-D	17 Apr 2014 10:45		01 May 2014 10:00	15 May 2014 03:30	1
HS14040954-08	NCL-33-0414-D	17 Apr 2014 11:25		01 May 2014 10:00	15 May 2014 03:39	1
Batch ID 81500	Test Name : DISSOLVED MERCURY BY SW7470A			Matrix: Water		
HS14040954-10	MW-18-0414-D	17 Apr 2014 12:05		02 May 2014 10:54	02 May 2014 16:56	1
HS14040954-12	MW-55-04174-D	17 Apr 2014 12:45		02 May 2014 10:54	02 May 2014 16:58	1
HS14040954-14	Dup-08-0414-D	17 Apr 2014 00:00		02 May 2014 10:54	02 May 2014 17:00	1
HS14040954-18	MW-45-0414-D	17 Apr 2014 14:00		02 May 2014 10:54	02 May 2014 17:01	1
HS14040954-24	EB-12-0414-D	17 Apr 2014 16:00		02 May 2014 10:54	02 May 2014 17:03	1
HS14040954-26	UG-3R-0414-D	17 Apr 2014 08:15		02 May 2014 10:54	02 May 2014 17:08	1
HS14040954-28	Dup-9-0414-D	17 Apr 2014 00:00		02 May 2014 10:54	02 May 2014 17:10	1
HS14040954-30	UG-1-0414-D	18 Apr 2014 09:00		02 May 2014 10:54	02 May 2014 17:12	1
HS14040954-32	UG-2-0414-D	18 Apr 2014 00:00		02 May 2014 10:54	02 May 2014 17:13	1
HS14040954-36	EB-13-0414-D	18 Apr 2014 11:00		02 May 2014 10:54	02 May 2014 17:15	1

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
WorkOrder: HS14040954

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 81574 Test Name : MERCURY BY SW7470A Matrix: Water						
HS14040954-09	MW-18-0414	17 Apr 2014 12:05		05 May 2014 11:11	05 May 2014 17:29	1
HS14040954-11	MW-55-0414	17 Apr 2014 12:45		05 May 2014 11:11	05 May 2014 17:31	1
HS14040954-13	Dup-08-0414	17 Apr 2014 00:00		05 May 2014 11:11	05 May 2014 17:32	1
HS14040954-17	MW-45-0414	17 Apr 2014 14:00		05 May 2014 11:11	05 May 2014 17:34	1
HS14040954-25	UG-3R-0414	17 Apr 2014 08:15		05 May 2014 11:11	05 May 2014 17:37	1
HS14040954-27	Dup-9-0414	17 Apr 2014 00:00		05 May 2014 11:11	05 May 2014 17:39	1
HS14040954-29	UG-1-0414	18 Apr 2014 09:00		05 May 2014 11:11	05 May 2014 17:41	1
HS14040954-31	UG-2-0414	18 Apr 2014 00:00		05 May 2014 11:11	05 May 2014 17:46	1
HS14040954-35	EB-13-0414	18 Apr 2014 11:00		05 May 2014 11:11	05 May 2014 17:48	1
Batch ID 81590 Test Name : DISSOLVED METALS BY SW6020A Matrix: Water						
HS14040954-10	MW-18-0414-D	17 Apr 2014 12:05		05 May 2014 10:00	22 May 2014 01:21	1
HS14040954-12	MW-55-04174-D	17 Apr 2014 12:45		05 May 2014 10:00	22 May 2014 01:25	1
HS14040954-14	Dup-08-0414-D	17 Apr 2014 00:00		05 May 2014 10:00	22 May 2014 01:30	1
HS14040954-16	MW-56-0414-D	17 Apr 2014 13:15		05 May 2014 10:00	22 May 2014 01:34	1
HS14040954-18	MW-45-0414-D	17 Apr 2014 14:00		05 May 2014 10:00	22 May 2014 17:11	1
HS14040954-18	MW-45-0414-D	17 Apr 2014 14:00		05 May 2014 10:00	22 May 2014 01:39	1
HS14040954-20	NCL-49-0414-D	17 Apr 2014 15:05		05 May 2014 10:00	22 May 2014 01:43	1
HS14040954-22	MW-54A-0414-D	17 Apr 2014 14:40		05 May 2014 10:00	22 May 2014 01:48	1
HS14040954-24	EB-12-0414-D	17 Apr 2014 16:00		05 May 2014 10:00	22 May 2014 02:01	1
HS14040954-26	UG-3R-0414-D	17 Apr 2014 08:15		05 May 2014 10:00	22 May 2014 20:44	1
HS14040954-26	UG-3R-0414-D	17 Apr 2014 08:15		05 May 2014 10:00	22 May 2014 02:05	1
HS14040954-28	Dup-9-0414-D	17 Apr 2014 00:00		05 May 2014 10:00	22 May 2014 20:48	1
HS14040954-28	Dup-9-0414-D	17 Apr 2014 00:00		05 May 2014 10:00	22 May 2014 02:10	1
HS14040954-30	UG-1-0414-D	18 Apr 2014 09:00		05 May 2014 10:00	22 May 2014 20:57	1
HS14040954-30	UG-1-0414-D	18 Apr 2014 09:00		05 May 2014 10:00	22 May 2014 02:14	1
HS14040954-32	UG-2-0414-D	18 Apr 2014 00:00		05 May 2014 10:00	22 May 2014 21:06	1
HS14040954-32	UG-2-0414-D	18 Apr 2014 00:00		05 May 2014 10:00	22 May 2014 02:19	1
HS14040954-34	MW-53-0414-D	18 Apr 2014 10:30		05 May 2014 10:00	22 May 2014 02:23	1
HS14040954-36	EB-13-0414-D	18 Apr 2014 11:00		05 May 2014 10:00	22 May 2014 02:27	1

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
WorkOrder: HS14040954

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 81595	Test Name : ICP-MS METALS BY SW6020A			Matrix: Water		
HS14040954-01	NCL-31-0414	17 Apr 2014 09:15		05 May 2014 10:20	20 May 2014 13:35	10
HS14040954-01	NCL-31-0414	17 Apr 2014 09:15		05 May 2014 10:20	19 May 2014 18:20	1
HS14040954-03	MW-108-0414	17 Apr 2014 09:50		05 May 2014 10:20	20 May 2014 13:37	10
HS14040954-03	MW-108-0414	17 Apr 2014 09:50		05 May 2014 10:20	19 May 2014 18:22	1
HS14040954-05	NCL-44-0414	17 Apr 2014 10:45		05 May 2014 10:20	20 May 2014 13:40	10
HS14040954-05	NCL-44-0414	17 Apr 2014 10:45		05 May 2014 10:20	19 May 2014 18:25	1
HS14040954-07	NCL-33-0414	17 Apr 2014 11:25		05 May 2014 10:20	20 May 2014 13:42	10
HS14040954-07	NCL-33-0414	17 Apr 2014 11:25		05 May 2014 10:20	19 May 2014 18:27	1
HS14040954-09	MW-18-0414	17 Apr 2014 12:05		05 May 2014 10:20	20 May 2014 13:44	10
HS14040954-09	MW-18-0414	17 Apr 2014 12:05		05 May 2014 10:20	19 May 2014 18:30	1
HS14040954-11	MW-55-0414	17 Apr 2014 12:45		05 May 2014 10:20	20 May 2014 13:47	10
HS14040954-11	MW-55-0414	17 Apr 2014 12:45		05 May 2014 10:20	19 May 2014 18:32	1
HS14040954-13	Dup-08-0414	17 Apr 2014 00:00		05 May 2014 10:20	20 May 2014 13:54	10
HS14040954-13	Dup-08-0414	17 Apr 2014 00:00		05 May 2014 10:20	19 May 2014 18:35	1
HS14040954-15	MW-56-0414	17 Apr 2014 13:15		05 May 2014 10:20	20 May 2014 13:57	10
HS14040954-15	MW-56-0414	17 Apr 2014 13:15		05 May 2014 10:20	19 May 2014 18:37	1
HS14040954-17	MW-45-0414	17 Apr 2014 14:00		05 May 2014 10:20	20 May 2014 13:59	10
HS14040954-17	MW-45-0414	17 Apr 2014 14:00		05 May 2014 10:20	19 May 2014 18:40	1
HS14040954-19	NCL-49-0414	17 Apr 2014 15:05		05 May 2014 10:20	20 May 2014 14:02	10
HS14040954-19	NCL-49-0414	17 Apr 2014 15:05		05 May 2014 10:20	19 May 2014 18:42	1
HS14040954-21	MW-54A-0414	17 Apr 2014 14:40		05 May 2014 10:20	20 May 2014 14:04	10
HS14040954-21	MW-54A-0414	17 Apr 2014 14:40		05 May 2014 10:20	19 May 2014 18:50	1
HS14040954-23	EB-12-0414	17 Apr 2014 16:00		05 May 2014 10:20	19 May 2014 18:52	1
HS14040954-25	UG-3R-0414	17 Apr 2014 08:15		05 May 2014 10:20	20 May 2014 14:06	10
HS14040954-25	UG-3R-0414	17 Apr 2014 08:15		05 May 2014 10:20	19 May 2014 18:55	1
HS14040954-27	Dup-9-0414	17 Apr 2014 00:00		05 May 2014 10:20	20 May 2014 14:09	10
HS14040954-27	Dup-9-0414	17 Apr 2014 00:00		05 May 2014 10:20	19 May 2014 18:57	1
HS14040954-29	UG-1-0414	18 Apr 2014 09:00		05 May 2014 10:20	20 May 2014 14:11	10
HS14040954-29	UG-1-0414	18 Apr 2014 09:00		05 May 2014 10:20	19 May 2014 19:00	1
HS14040954-31	UG-2-0414	18 Apr 2014 00:00		05 May 2014 10:20	20 May 2014 14:14	10
HS14040954-31	UG-2-0414	18 Apr 2014 00:00		05 May 2014 10:20	19 May 2014 19:02	1
HS14040954-33	MW-53-0414	18 Apr 2014 10:30		05 May 2014 10:20	20 May 2014 14:16	10
HS14040954-33	MW-53-0414	18 Apr 2014 10:30		05 May 2014 10:20	19 May 2014 19:05	1
HS14040954-35	EB-13-0414	18 Apr 2014 11:00		05 May 2014 10:20	19 May 2014 19:07	1
Batch ID 81847	Test Name : MERCURY BY SW7470A			Matrix: Water		
HS14040954-23	EB-12-0414	17 Apr 2014 16:00		14 May 2014 09:30	14 May 2014 15:25	1

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
WorkOrder: HS14040954

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R232567 Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C Matrix: Water						
HS14040954-01	NCL-31-0414	17 Apr 2014 09:15			23 Apr 2014 18:50	1
HS14040954-03	MW-108-0414	17 Apr 2014 09:50			23 Apr 2014 18:50	1
HS14040954-05	NCL-44-0414	17 Apr 2014 10:45			23 Apr 2014 18:50	1
HS14040954-07	NCL-33-0414	17 Apr 2014 11:25			23 Apr 2014 18:50	1
HS14040954-09	MW-18-0414	17 Apr 2014 12:05			23 Apr 2014 18:50	1
HS14040954-11	MW-55-0414	17 Apr 2014 12:45			23 Apr 2014 18:50	1
HS14040954-13	Dup-08-0414	17 Apr 2014 00:00			23 Apr 2014 18:50	1
HS14040954-15	MW-56-0414	17 Apr 2014 13:15			23 Apr 2014 18:50	1
HS14040954-17	MW-45-0414	17 Apr 2014 14:00			23 Apr 2014 18:50	1
HS14040954-19	NCL-49-0414	17 Apr 2014 15:05			23 Apr 2014 18:50	1
HS14040954-21	MW-54A-0414	17 Apr 2014 14:40			23 Apr 2014 18:50	1
HS14040954-23	EB-12-0414	17 Apr 2014 16:00			23 Apr 2014 18:50	1
HS14040954-25	UG-3R-0414	17 Apr 2014 08:15			23 Apr 2014 18:50	1
HS14040954-27	Dup-9-0414	17 Apr 2014 00:00			23 Apr 2014 18:50	1
Batch ID R232718 Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C Matrix: Water						
HS14040954-29	UG-1-0414	18 Apr 2014 09:00			25 Apr 2014 18:30	1
HS14040954-31	UG-2-0414	18 Apr 2014 00:00			25 Apr 2014 18:30	1
HS14040954-33	MW-53-0414	18 Apr 2014 10:30			25 Apr 2014 18:30	1
HS14040954-35	EB-13-0414	18 Apr 2014 11:00			25 Apr 2014 18:30	1
Batch ID R232731 Test Name : GASOLINE RANGE ORGANICS BY SW8015C Matrix: Water						
HS14040954-11	MW-55-0414	17 Apr 2014 12:45			28 Apr 2014 17:17	1
HS14040954-13	Dup-08-0414	17 Apr 2014 00:00			28 Apr 2014 17:39	1
HS14040954-23	EB-12-0414	17 Apr 2014 16:00			28 Apr 2014 17:57	1
HS14040954-25	UG-3R-0414	17 Apr 2014 08:15			28 Apr 2014 18:16	1
HS14040954-27	Dup-9-0414	17 Apr 2014 00:00			28 Apr 2014 18:34	1
Batch ID R232831 Test Name : GASOLINE RANGE ORGANICS BY SW8015C Matrix: Water						
HS14040954-29	UG-1-0414	18 Apr 2014 09:00			29 Apr 2014 15:53	1
HS14040954-31	UG-2-0414	18 Apr 2014 00:00			29 Apr 2014 16:49	1
HS14040954-35	EB-13-0414	18 Apr 2014 11:00			29 Apr 2014 17:07	1

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
WorkOrder: HS14040954

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R232862 Test Name : VOLATILES - SW8260C Matrix: Water						
HS14040954-01	NCL-31-0414	17 Apr 2014 09:15			29 Apr 2014 13:38	1
HS14040954-03	MW-108-0414	17 Apr 2014 09:50			29 Apr 2014 16:45	10
HS14040954-03	MW-108-0414	17 Apr 2014 09:50			29 Apr 2014 14:02	1
HS14040954-05	NCL-44-0414	17 Apr 2014 10:45			29 Apr 2014 14:26	1
HS14040954-07	NCL-33-0414	17 Apr 2014 11:25			29 Apr 2014 15:09	1
HS14040954-09	MW-18-0414	17 Apr 2014 12:05			29 Apr 2014 15:33	1
HS14040954-11	MW-55-0414	17 Apr 2014 12:45			29 Apr 2014 17:09	1
HS14040954-13	Dup-08-0414	17 Apr 2014 00:00			29 Apr 2014 17:33	1
HS14040954-15	MW-56-0414	17 Apr 2014 13:15			29 Apr 2014 17:57	1
HS14040954-17	MW-45-0414	17 Apr 2014 14:00			29 Apr 2014 18:21	1
HS14040954-19	NCL-49-0414	17 Apr 2014 15:05			29 Apr 2014 18:45	1
HS14040954-21	MW-54A-0414	17 Apr 2014 14:40			29 Apr 2014 19:09	1
HS14040954-23	EB-12-0414	17 Apr 2014 16:00			29 Apr 2014 19:33	1
HS14040954-25	UG-3R-0414	17 Apr 2014 08:15			29 Apr 2014 19:57	1
HS14040954-27	Dup-9-0414	17 Apr 2014 00:00			29 Apr 2014 20:21	1
HS14040954-29	UG-1-0414	18 Apr 2014 09:00			29 Apr 2014 20:45	1
HS14040954-31	UG-2-0414	18 Apr 2014 00:00			29 Apr 2014 21:09	1
HS14040954-33	MW-53-0414	18 Apr 2014 10:30			29 Apr 2014 21:33	1
HS14040954-35	EB-13-0414	18 Apr 2014 11:00			29 Apr 2014 21:57	1
Batch ID R232988 Test Name : VOLATILES - SW8260C Matrix: Water						
HS14040954-37	TB-032814-05	18 Apr 2014 10:00			30 Apr 2014 17:01	1
Batch ID R232994 Test Name : CYANIDE BY SW9012B Matrix: Water						
HS14040954-09	MW-18-0414	17 Apr 2014 12:05			01 May 2014 14:00	1
HS14040954-11	MW-55-0414	17 Apr 2014 12:45			01 May 2014 14:00	1
HS14040954-13	Dup-08-0414	17 Apr 2014 00:00			01 May 2014 14:00	1
HS14040954-17	MW-45-0414	17 Apr 2014 14:00			01 May 2014 14:00	1
HS14040954-23	EB-12-0414	17 Apr 2014 16:00			01 May 2014 14:00	1
HS14040954-25	UG-3R-0414	17 Apr 2014 08:15			01 May 2014 14:00	1
HS14040954-27	Dup-9-0414	17 Apr 2014 00:00			01 May 2014 14:00	1
HS14040954-29	UG-1-0414	18 Apr 2014 09:00			01 May 2014 14:00	1
HS14040954-31	UG-2-0414	18 Apr 2014 00:00			01 May 2014 14:00	1
HS14040954-35	EB-13-0414	18 Apr 2014 11:00			01 May 2014 14:00	1

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
WorkOrder: HS14040954

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R233144	Test Name : ANIONS BY E300.0			Matrix: Water		
HS14040954-01	NCL-31-0414	17 Apr 2014 09:15			04 May 2014 10:09	1
HS14040954-01	NCL-31-0414	17 Apr 2014 09:15			04 May 2014 00:41	50
HS14040954-03	MW-108-0414	17 Apr 2014 09:50			04 May 2014 10:35	1
HS14040954-03	MW-108-0414	17 Apr 2014 09:50			04 May 2014 01:07	50
HS14040954-05	NCL-44-0414	17 Apr 2014 10:45			04 May 2014 11:01	1
HS14040954-05	NCL-44-0414	17 Apr 2014 10:45			04 May 2014 01:33	50
HS14040954-07	NCL-33-0414	17 Apr 2014 11:25			04 May 2014 11:27	1
HS14040954-07	NCL-33-0414	17 Apr 2014 11:25			04 May 2014 01:59	50
HS14040954-09	MW-18-0414	17 Apr 2014 12:05			04 May 2014 11:52	1
HS14040954-09	MW-18-0414	17 Apr 2014 12:05			04 May 2014 02:24	50
HS14040954-11	MW-55-0414	17 Apr 2014 12:45			04 May 2014 12:18	1
HS14040954-11	MW-55-0414	17 Apr 2014 12:45			04 May 2014 02:50	50
HS14040954-13	Dup-08-0414	17 Apr 2014 00:00			04 May 2014 12:44	1
HS14040954-13	Dup-08-0414	17 Apr 2014 00:00			04 May 2014 03:16	50
HS14040954-15	MW-56-0414	17 Apr 2014 13:15			04 May 2014 13:10	1
HS14040954-15	MW-56-0414	17 Apr 2014 13:15			04 May 2014 03:42	50
HS14040954-17	MW-45-0414	17 Apr 2014 14:00			04 May 2014 14:27	1
HS14040954-17	MW-45-0414	17 Apr 2014 14:00			04 May 2014 04:59	50
HS14040954-19	NCL-49-0414	17 Apr 2014 15:05			04 May 2014 14:53	1
HS14040954-19	NCL-49-0414	17 Apr 2014 15:05			04 May 2014 05:25	50
HS14040954-21	MW-54A-0414	17 Apr 2014 14:40			04 May 2014 15:19	1
HS14040954-21	MW-54A-0414	17 Apr 2014 14:40			04 May 2014 05:51	50
HS14040954-23	EB-12-0414	17 Apr 2014 16:00			04 May 2014 15:45	1
HS14040954-25	UG-3R-0414	17 Apr 2014 08:15			04 May 2014 16:11	1
HS14040954-25	UG-3R-0414	17 Apr 2014 08:15			04 May 2014 06:17	50
HS14040954-27	Dup-9-0414	17 Apr 2014 00:00			04 May 2014 16:36	1
HS14040954-27	Dup-9-0414	17 Apr 2014 00:00			04 May 2014 06:43	50
HS14040954-29	UG-1-0414	18 Apr 2014 09:00			04 May 2014 17:02	1
HS14040954-29	UG-1-0414	18 Apr 2014 09:00			04 May 2014 07:08	50
HS14040954-31	UG-2-0414	18 Apr 2014 00:00			04 May 2014 17:28	1
HS14040954-31	UG-2-0414	18 Apr 2014 00:00			04 May 2014 07:34	50
HS14040954-33	MW-53-0414	18 Apr 2014 10:30			04 May 2014 17:54	1
HS14040954-33	MW-53-0414	18 Apr 2014 10:30			04 May 2014 08:00	50
HS14040954-35	EB-13-0414	18 Apr 2014 11:00			04 May 2014 18:20	1

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
WorkOrder: HS14040954

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID	R233724	Test Name : NITRATE/NITRITE BY E300.0			Matrix: Water	
HS14040954-01	NCL-31-0414	17 Apr 2014 09:15			13 May 2014 03:04	5
HS14040954-03	MW-108-0414	17 Apr 2014 09:50			13 May 2014 03:19	5
HS14040954-05	NCL-44-0414	17 Apr 2014 10:45			13 May 2014 03:33	5
HS14040954-07	NCL-33-0414	17 Apr 2014 11:25			13 May 2014 03:48	5
HS14040954-09	MW-18-0414	17 Apr 2014 12:05			13 May 2014 04:31	5
HS14040954-11	MW-55-0414	17 Apr 2014 12:45			13 May 2014 04:46	5
HS14040954-13	Dup-08-0414	17 Apr 2014 00:00			13 May 2014 05:01	5
HS14040954-15	MW-56-0414	17 Apr 2014 13:15			13 May 2014 05:15	5
HS14040954-17	MW-45-0414	17 Apr 2014 14:00			13 May 2014 05:30	5
HS14040954-19	NCL-49-0414	17 Apr 2014 15:05			13 May 2014 05:44	5
HS14040954-21	MW-54A-0414	17 Apr 2014 14:40			13 May 2014 05:59	5
HS14040954-23	EB-12-0414	17 Apr 2014 16:00			13 May 2014 06:13	5
HS14040954-25	UG-3R-0414	17 Apr 2014 08:15			13 May 2014 06:28	5
HS14040954-27	Dup-9-0414	17 Apr 2014 00:00			13 May 2014 06:42	5
HS14040954-29	UG-1-0414	18 Apr 2014 09:00			13 May 2014 07:26	5
HS14040954-31	UG-2-0414	18 Apr 2014 00:00			13 May 2014 08:10	5
HS14040954-33	MW-53-0414	18 Apr 2014 10:30			13 May 2014 08:24	5
HS14040954-35	EB-13-0414	18 Apr 2014 11:00			13 May 2014 08:39	5

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: 81175		Instrument: FID-16		Method: SW8015M	
MBLK	Sample ID: LBLKW-140424	Units: mg/L		Analysis Date: 24-Apr-2014 16:11	
Client ID:	Run ID: FID-16_232751	SeqNo: 2822884		PrepDate: 24-Apr-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

TPH (Diesel Range) U 0.050

Surr: 2-Fluorobiphenyl 0.06048 0.0050 0.06061 0 99.8 60 - 135

LCS	Sample ID: LLCSSW-140424	Units: mg/L		Analysis Date: 24-Apr-2014 16:38	
Client ID:	Run ID: FID-16_232751	SeqNo: 2822885		PrepDate: 24-Apr-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

TPH (Diesel Range) 0.5843 0.050 0.6061 0 96.4 70 - 130

Surr: 2-Fluorobiphenyl 0.05384 0.0050 0.06061 0 88.8 60 - 135

LCSD	Sample ID: LLCSDW-140424	Units: mg/L		Analysis Date: 24-Apr-2014 17:04	
Client ID:	Run ID: FID-16_232751	SeqNo: 2822886		PrepDate: 24-Apr-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

TPH (Diesel Range) 0.5539 0.050 0.6061 0 91.4 70 - 130 0.5843 5.35 20

Surr: 2-Fluorobiphenyl 0.04887 0.0050 0.06061 0 80.6 60 - 135 0.05384 9.67 20

The following samples were analyzed in this batch:

HS14040954-01	HS14040954-03	HS14040954-05	HS14040954-07
HS14040954-09	HS14040954-11	HS14040954-13	HS14040954-15
HS14040954-17	HS14040954-19	HS14040954-21	HS14040954-23
HS14040954-25	HS14040954-27	HS14040954-29	HS14040954-31
HS14040954-33	HS14040954-35		

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232731		Instrument: FID-9		Method: SW8015					
MBLK	Sample ID: GBLKW-140428	Units: mg/L		Analysis Date: 28-Apr-2014 11:44					
Client ID:	Run ID: FID-9_232731	SeqNo: 2813294		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Gasoline Range Organics	U	0.0500							
Surr: 4-Bromofluorobenzene	0.1183	0.00500	0.1	0	118	70 - 130			
LCS	Sample ID: GLCSW-140428	Units: mg/L		Analysis Date: 28-Apr-2014 11:08					
Client ID:	Run ID: FID-9_232731	SeqNo: 2813293		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Gasoline Range Organics	1.032	0.0500	1	0	103	70 - 130			
Surr: 4-Bromofluorobenzene	0.1213	0.00500	0.1	0	121	70 - 130			
MS	Sample ID: HS14040871-01MS	Units: mg/L		Analysis Date: 28-Apr-2014 14:30					
Client ID:	Run ID: FID-9_232731	SeqNo: 2813296		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Gasoline Range Organics	1.136	0.0500	1	0.05626	108	70 - 130			
Surr: 4-Bromofluorobenzene	0.1211	0.00500	0.1	0	121	70 - 130			
MSD	Sample ID: HS14040871-01MSD	Units: mg/L		Analysis Date: 28-Apr-2014 14:48					
Client ID:	Run ID: FID-9_232731	SeqNo: 2813297		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Gasoline Range Organics	1.118	0.0500	1	0.05626	106	70 - 130	1.136	1.65	30
Surr: 4-Bromofluorobenzene	0.1217	0.00500	0.1	0	122	70 - 130	0.1211	0.556	30
The following samples were analyzed in this batch:									
HS14040954-11		HS14040954-13		HS14040954-23		HS14040954-25			
HS14040954-27									

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232831		Instrument: FID-9		Method: SW8015	
MBLK	Sample ID: GBLKW-140429	Units: mg/L		Analysis Date: 29-Apr-2014 11:43	
Client ID:	Run ID: FID-9_232831	SeqNo: 2815227		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Gasoline Range Organics	U	0.0500			
Surr: 4-Bromofluorobenzene	0.1172	0.00500	0.1	0 117	70 - 130
LCS	Sample ID: GLCSW-140429	Units: mg/L		Analysis Date: 29-Apr-2014 11:05	
Client ID:	Run ID: FID-9_232831	SeqNo: 2815226		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Gasoline Range Organics	1.004	0.0500	1	0 100	70 - 130
Surr: 4-Bromofluorobenzene	0.1206	0.00500	0.1	0 121	70 - 130
MS	Sample ID: HS14040954-29MS	Units: mg/L		Analysis Date: 29-Apr-2014 16:13	
Client ID: UG-1-0414	Run ID: FID-9_232831	SeqNo: 2815237		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Gasoline Range Organics	1.003	0.0500	1	0 100	70 - 130
Surr: 4-Bromofluorobenzene	0.119	0.00500	0.1	0 119	70 - 130
MSD	Sample ID: HS14040954-29MSD	Units: mg/L		Analysis Date: 29-Apr-2014 16:31	
Client ID: UG-1-0414	Run ID: FID-9_232831	SeqNo: 2815238		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Gasoline Range Organics	1.018	0.0500	1	0 102	70 - 130 1.003 1.52 30
Surr: 4-Bromofluorobenzene	0.1201	0.00500	0.1	0 120	70 - 130 0.119 0.877 30
The following samples were analyzed in this batch:					
HS14040954-29		HS14040954-31		HS14040954-35	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: 81476		Instrument: ICP7500		Method: SW6020	
MBLK	Sample ID: MBLKW4-050114	Units: mg/L		Analysis Date: 13-May-2014 15:40	
Client ID:	Run ID: ICP7500_233632	SeqNo: 2833212		PrepDate: 01-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	U	0.00500			
Barium	U	0.00500			
Chromium	U	0.00500			
Iron	U	0.200			
Lead	U	0.00500			
Manganese	U	0.00500			
Selenium	U	0.00500			

LCS	Sample ID: MLCSW4-050114	Units: mg/L		Analysis Date: 13-May-2014 15:45	
Client ID:	Run ID: ICP7500_233632	SeqNo: 2833213		PrepDate: 01-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.04882	0.00500	0.05	0 97.6	80 - 120
Barium	0.04823	0.00500	0.05	0 96.5	80 - 120
Chromium	0.04644	0.00500	0.05	0 92.9	80 - 120
Iron	4.631	0.200	5	0 92.6	80 - 120
Lead	0.04751	0.00500	0.05	0 95.0	80 - 120
Manganese	0.04702	0.00500	0.05	0 94.0	80 - 120
Selenium	0.04823	0.00500	0.05	0 96.5	80 - 120

MS	Sample ID: HS14040710-01MS	Units: mg/L		Analysis Date: 13-May-2014 16:16	
Client ID:	Run ID: ICP7500_233632	SeqNo: 2833219		PrepDate: 01-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.06202	0.00500	0.05	0.004113 116	75 - 125
Barium	0.07646	0.00500	0.05	0.02082 111	75 - 125
Chromium	0.05461	0.00500	0.05	0.0005001 108	75 - 125
Iron	5.569	0.200	5	0.3292 105	75 - 125
Lead	0.05237	0.00500	0.05	0.0005615 104	75 - 125
Manganese	0.2865	0.00500	0.05	0.2223 128	75 - 125 SO
Selenium	0.05888	0.00500	0.05	0.000253 117	75 - 125

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: 81476		Instrument: ICP7500		Method: SW6020						
MSD		Sample ID: HS14040710-01MSD		Units: mg/L		Analysis Date: 13-May-2014 16:21				
Client ID:		Run ID: ICP7500_233632		SeqNo: 2833220		PrepDate: 01-May-2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05947	0.00500	0.05	0.004113	111	75 - 125	0.06202	4.2	25	
Barium	0.07428	0.00500	0.05	0.02082	107	75 - 125	0.07646	2.89	25	
Chromium	0.05443	0.00500	0.05	0.0005001	108	75 - 125	0.05461	0.33	25	
Iron	5.438	0.200	5	0.3292	102	75 - 125	5.569	2.38	25	
Lead	0.05213	0.00500	0.05	0.0005615	103	75 - 125	0.05237	0.459	25	
Manganese	0.2799	0.00500	0.05	0.2223	115	75 - 125	0.2865	2.33	25	O
Selenium	0.05948	0.00500	0.05	0.000253	118	75 - 125	0.05888	1.01	25	

DUP		Sample ID: HS14040710-01DUP		Units: mg/L		Analysis Date: 13-May-2014 16:07				
Client ID:		Run ID: ICP7500_233632		SeqNo: 2833217		PrepDate: 01-May-2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.003976	0.00500					0.004113	0	25	J
Barium	0.02008	0.00500					0.02082	3.62	25	
Chromium	U	0.00500					0.0005001	0	25	
Iron	0.2299	0.200					0.3292	35.5	25	R
Lead	U	0.00500					0.0005615	0	25	
Manganese	0.2185	0.00500					0.2223	1.72	25	
Selenium	U	0.00500					0.000253	0	25	

PDS		Sample ID: HS14040710-01BS		Units: mg/L		Analysis Date: 13-May-2014 16:26				
Client ID:		Run ID: ICP7500_233632		SeqNo: 2833221		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.1119	0.00500	0.1	0.004113	108	75 - 125				
Barium	0.1189	0.00500	0.1	0.02082	98.1	75 - 125				
Chromium	0.103	0.00500	0.1	0.0005001	102	75 - 125				
Iron	10.37	0.200	10	0.3292	100	75 - 125				
Lead	0.09887	0.00500	0.1	0.0005615	98.3	75 - 125				
Manganese	0.3169	0.00500	0.1	0.2223	94.6	75 - 125				
Selenium	0.1102	0.00500	0.1	0.000253	110	75 - 125				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: 81476		Instrument: ICP7500		Method: SW6020	
SD	Sample ID: HS14040710-01 DIL SX	Units: mg/L		Analysis Date: 13-May-2014 16:12	
Client ID:	Run ID: ICP7500_233632	SeqNo: 2833218		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	U	0.0250			0.004113 0 10
Barium	0.02174	0.0250			0.02082 0 10 J
Chromium	U	0.0250			0.0005001 0 10
Iron	U	1.00			0.3292 0 10
Lead	U	0.0250			0.0005615 0 10
Manganese	0.2222	0.0250			0.2223 0.0225 10
Selenium	U	0.0250			0.000253 0 10
The following samples were analyzed in this batch:					
HS14040954-02		HS14040954-04		HS14040954-06	
HS14040954-08				HS14040954-07	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: 81500		Instrument: HG03		Method: SW7470	
MBLK	Sample ID: GBLKW3-050214	Units: mg/L		Analysis Date: 02-May-2014 16:14	
Client ID:	Run ID: HG03_232876	SeqNo: 2820016		PrepDate: 02-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	U	0.000200			
LCS	Sample ID: GLCSW3-050214	Units: mg/L		Analysis Date: 02-May-2014 16:15	
Client ID:	Run ID: HG03_232876	SeqNo: 2820017		PrepDate: 02-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	0.00516	0.000200	0.005	0 103	80 - 120
MS	Sample ID: HS14041149-06MS	Units: mg/L		Analysis Date: 02-May-2014 16:34	
Client ID:	Run ID: HG03_232876	SeqNo: 2820020		PrepDate: 02-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	0.00319	0.000200	0.005	0.000009 63.6	80 - 120 S
MSD	Sample ID: HS14041149-06MSD	Units: mg/L		Analysis Date: 02-May-2014 16:36	
Client ID:	Run ID: HG03_232876	SeqNo: 2820021		PrepDate: 02-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	0.00306	0.000200	0.005	0.000009 61.0	80 - 120 0.00319 4.16 20 S
DUP	Sample ID: HS14041149-06DUP	Units: mg/L		Analysis Date: 02-May-2014 16:19	
Client ID:	Run ID: HG03_232876	SeqNo: 2820019		PrepDate: 02-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	U	0.000200		0.000009	0 20
The following samples were analyzed in this batch:					
HS14040954-10		HS14040954-12		HS14040954-14	
HS14040954-24		HS14040954-26		HS14040954-28	
HS14040954-32		HS14040954-36		HS14040954-30	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: 81574		Instrument: HG03		Method: SW7470	
MBLK	Sample ID: GBLKW2-050514	Units: mg/L		Analysis Date: 05-May-2014 17:25	
Client ID:	Run ID: HG03_233158	SeqNo: 2822369		PrepDate: 05-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	U	0.000200			
LCS	Sample ID: GLCSW2-050514	Units: mg/L		Analysis Date: 05-May-2014 17:27	
Client ID:	Run ID: HG03_233158	SeqNo: 2822370		PrepDate: 05-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	0.00497	0.000200	0.005	0 99.4	80 - 124
MS	Sample ID: HS14041025-01MS	Units: mg/L		Analysis Date: 05-May-2014 18:05	
Client ID:	Run ID: HG03_233158	SeqNo: 2822392		PrepDate: 05-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	0.0048	0.000200	0.005	0.000015 95.7	80 - 124
MSD	Sample ID: HS14041025-01MSD	Units: mg/L		Analysis Date: 05-May-2014 18:06	
Client ID:	Run ID: HG03_233158	SeqNo: 2822393		PrepDate: 05-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	0.00478	0.000200	0.005	0.000015 95.3	80 - 124 0.0048 0.418 20
DUP	Sample ID: HS14041025-01DUP	Units: mg/L		Analysis Date: 05-May-2014 18:03	
Client ID:	Run ID: HG03_233158	SeqNo: 2822391		PrepDate: 05-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	U	0.000200		0.000015	0 20
The following samples were analyzed in this batch:					
HS14040954-09		HS14040954-11		HS14040954-13	
HS14040954-22		HS14040954-25		HS14040954-27	
HS14040954-31		HS14040954-35		HS14040954-17	
				HS14040954-29	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: 81590		Instrument: ICPMS03		Method: SW6020	
MBLK	Sample ID: MBLKW1-050514	Units: mg/L		Analysis Date: 22-May-2014 00:27	
Client ID:	Run ID: ICPMS03_234146	SeqNo: 2846484		PrepDate: 05-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Arsenic	U	0.00500			
Barium	U	0.00500			
Chromium	U	0.00500			
Iron	U	0.200			
Lead	U	0.00500			
Manganese	U	0.00500			
Nickel	U	0.00500			
Selenium	U	0.00500			
Vanadium	U	0.00500			

LCS	Sample ID: MLCSW1-050514	Units: mg/L		Analysis Date: 22-May-2014 00:32	
Client ID:	Run ID: ICPMS03_234146	SeqNo: 2846485		PrepDate: 05-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Arsenic	0.05255	0.00500	0.05	0 105	80 - 120
Barium	0.05526	0.00500	0.05	0 111	80 - 120
Chromium	0.0526	0.00500	0.05	0 105	80 - 120
Iron	5.256	0.200	5	0 105	80 - 120
Lead	0.05314	0.00500	0.05	0 106	80 - 120
Manganese	0.05157	0.00500	0.05	0 103	80 - 120
Nickel	0.05303	0.00500	0.05	0 106	80 - 120
Selenium	0.05224	0.00500	0.05	0 104	80 - 120
Vanadium	0.05049	0.00500	0.05	0 101	80 - 120

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: 81590		Instrument: ICPMS03		Method: SW6020							
MS		Sample ID: HS14041149-06MS		Units: mg/L		Analysis Date: 22-May-2014 00:50					
Client ID:		Run ID: ICPMS03_234146		SeqNo: 2846489		PrepDate: 05-May-2014		DF: 50			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	0.1874	0.250	0.1	0.04491	143	75 - 125				JS	
Barium	53.25	0.250	0.1	42.82	10400	75 - 125				SO	
Chromium	0.1296	0.250	0.1	0.01072	119	75 - 125				J	
Iron	33.37	10.0	10	16.88	165	75 - 125				S	
Lead	0.08095	0.250	0.1	0.0008175	80.1	75 - 125				J	
Manganese	1.54	0.250	0.1	1.186	354	75 - 125				SO	
Nickel	0.1011	0.250	0.1	-0.01583	117	75 - 125				J	
Selenium	0.1881	0.250	0.1	0.03006	158	75 - 125				JS	
Vanadium	0.1161	0.250	0.1	-0.000077	116	75 - 125				J	

MSD		Sample ID: HS14041149-06MSD		Units: mg/L		Analysis Date: 22-May-2014 00:54				
Client ID:		Run ID: ICPMS03_234146		SeqNo: 2846490		PrepDate: 05-May-2014		DF: 50		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.194	0.250	0.1	0.04491	149	75 - 125	0.1874	0	25	JS
Barium	52.45	0.250	0.1	42.82	9640	75 - 125	53.25	1.51	25	SO
Chromium	0.1235	0.250	0.1	0.01072	113	75 - 125	0.1296	0	25	J
Iron	32.68	10.0	10	16.88	158	75 - 125	33.37	2.07	25	S
Lead	0.085	0.250	0.1	0.0008175	84.2	75 - 125	0.08095	0	25	J
Manganese	1.494	0.250	0.1	1.186	308	75 - 125	1.54	3.03	25	SO
Nickel	0.101	0.250	0.1	-0.01583	117	75 - 125	0.1011	0	25	J
Selenium	0.194	0.250	0.1	0.03006	164	75 - 125	0.1881	0	25	JS
Vanadium	0.09095	0.250	0.1	-0.000077	91.0	75 - 125	0.1161	0	25	J

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: 81590		Instrument: ICPMS03		Method: SW6020						
DUP	Sample ID: HS14041149-06DUP	Units: mg/L			Analysis Date: 22-May-2014 00:41					
Client ID:	Run ID: ICPMS03_234146	SeqNo: 2846487		PrepDate: 05-May-2014		DF: 50				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.06585	0.250					0.04491	0	25	J
Barium	50.15	0.250					42.82	15.8	25	
Chromium	U	0.250					0.01072	0	25	
Iron	20.04	10.0					16.88	17.1	25	
Lead	U	0.250					0.0008175	0	25	
Manganese	1.415	0.250					1.186	17.6	25	
Nickel	U	0.250					-0.01583	0	25	
Selenium	0.06505	0.250					0.03006	0	25	J
Vanadium	U	0.250					-0.000077	0	25	

PDS	Sample ID: HS14041149-06BS	Units: mg/L			Analysis Date: 22-May-2014 00:59					
Client ID:	Run ID: ICPMS03_234146	SeqNo: 2846491		PrepDate:		DF: 50				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.27	0.250	5	0	105	75 - 125				
Barium	44.5	0.250	5	42.82	33.6	75 - 125				SO
Chromium	4.94	0.250	5	0	98.8	75 - 125				
Iron	504	10.0	500	16.88	97.4	75 - 125				
Lead	4.886	0.250	5	0	97.7	75 - 125				
Manganese	5.935	0.250	5	1.186	95.0	75 - 125				
Nickel	4.82	0.250	5	0	96.4	75 - 125				
Selenium	5.25	0.250	5	0	105	75 - 125				
Vanadium	4.997	0.250	5	0	99.9	75 - 125				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: 81590		Instrument: ICPMS03		Method: SW6020						
SD	Sample ID: HS14041149-06 DIL SX	Units: mg/L		Analysis Date: 22-May-2014 00:45						
Client ID:	Run ID: ICPMS03_234146	SeqNo: 2846488		PrepDate:		DF: 250				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	1.25					0.04491	0	10	
Barium	43.48	1.25					42.82	1.54	10	
Chromium	U	1.25					0.01072	0	10	
Iron	U	50.0					16.88	0	10	
Lead	U	1.25					0.0008175	0	10	
Manganese	1.215	1.25					1.186	0	10	J
Nickel	U	1.25					-0.01583	0	10	
Selenium	U	1.25					0.03006	0	10	
Vanadium	U	1.25					-0.000077	0	10	
The following samples were anayzed in this batch:										
HS14040954-10		HS14040954-12		HS14040954-14		HS14040954-16				
HS14040954-18		HS14040954-20		HS14040954-22		HS14040954-24				
HS14040954-26		HS14040954-28		HS14040954-30		HS14040954-32				
HS14040954-34		HS14040954-36								

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: 81595		Instrument: ICPMS05		Method: SW6020	
MBLK	Sample ID: MBLKW3-050514	Units: mg/L		Analysis Date: 19-May-2014 18:10	
Client ID:	Run ID: ICPMS05_233909	SeqNo: 2841478		PrepDate: 05-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Arsenic	U	0.00500			
Barium	U	0.00500			
Calcium	U	0.500			
Chromium	U	0.00500			
Iron	U	0.200			
Lead	U	0.00500			
Manganese	U	0.00500			
Nickel	U	0.00500			
Potassium	U	0.200			
Selenium	0.001012	0.00500			J
Sodium	0.1858	0.200			J
Vanadium	0.001062	0.00500			J

LCS	Sample ID: MLCSW3-050514	Units: mg/L		Analysis Date: 19-May-2014 18:13	
Client ID:	Run ID: ICPMS05_233909	SeqNo: 2841479		PrepDate: 05-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Arsenic	0.05245	0.00500	0.05	0	105	80 - 120
Barium	0.05145	0.00500	0.05	0	103	80 - 120
Calcium	5.571	0.500	5	0	111	80 - 120
Chromium	0.0526	0.00500	0.05	0	105	80 - 120
Iron	5.351	0.200	5	0	107	80 - 120
Lead	0.05322	0.00500	0.05	0	106	80 - 120
Manganese	0.05347	0.00500	0.05	0	107	80 - 120
Nickel	0.05531	0.00500	0.05	0	111	80 - 120
Potassium	5.581	0.200	5	0	112	80 - 120
Selenium	0.05437	0.00500	0.05	0	109	80 - 120
Sodium	5.47	0.200	5	0	109	80 - 120
Vanadium	0.05384	0.00500	0.05	0	108	80 - 120

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: 81595		Instrument: ICPMS05		Method: SW6020						
MS		Sample ID: HS14041021-01MS		Units: mg/L		Analysis Date: 19-May-2014 19:19				
Client ID:		Run ID: ICPMS05_233909		SeqNo: 2841506		PrepDate: 05-May-2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05325	0.00500	0.05	0.001688	103	80 - 120				
Barium	0.2899	0.00500	0.05	0.2448	90.3	80 - 120				O
Calcium	45.14	0.500	5	39.86	106	80 - 120				O
Chromium	0.04953	0.00500	0.05	0.000808	97.4	80 - 120				
Iron	4.907	0.200	5	0.02831	97.6	80 - 120				
Lead	0.0541	0.00500	0.05	0.000162	108	80 - 120				
Manganese	0.04987	0.00500	0.05	0.000839	98.1	80 - 120				
Nickel	0.0494	0.00500	0.05	0.000385	98.0	80 - 120				
Potassium	5.717	0.200	5	0.6276	102	80 - 120				
Selenium	0.05459	0.00500	0.05	0.002497	104	80 - 120				
Sodium	38.42	0.200	5	34.06	87.1	80 - 120				O
Vanadium	0.05905	0.00500	0.05	0.01044	97.2	80 - 120				

MSD		Sample ID: HS14041021-01MSD		Units: mg/L		Analysis Date: 19-May-2014 19:22				
Client ID:		Run ID: ICPMS05_233909		SeqNo: 2841507		PrepDate: 05-May-2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05455	0.00500	0.05	0.001688	106	80 - 120	0.05325	2.4	15	
Barium	0.3014	0.00500	0.05	0.2448	113	80 - 120	0.2899	3.88	15	O
Calcium	46.61	0.500	5	39.86	135	80 - 120	45.14	3.2	15	SO
Chromium	0.05003	0.00500	0.05	0.000808	98.5	80 - 120	0.04953	1.01	15	
Iron	4.938	0.200	5	0.02831	98.2	80 - 120	4.907	0.641	15	
Lead	0.05464	0.00500	0.05	0.000162	109	80 - 120	0.0541	1	15	
Manganese	0.05023	0.00500	0.05	0.000839	98.8	80 - 120	0.04987	0.715	15	
Nickel	0.04777	0.00500	0.05	0.000385	94.8	80 - 120	0.0494	3.35	15	
Potassium	5.835	0.200	5	0.6276	104	80 - 120	5.717	2.05	15	
Selenium	0.05361	0.00500	0.05	0.002497	102	80 - 120	0.05459	1.82	15	
Sodium	39.98	0.200	5	34.06	118	80 - 120	38.42	3.98	15	O
Vanadium	0.0597	0.00500	0.05	0.01044	98.5	80 - 120	0.05905	1.09	15	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: 81595		Instrument: ICPMS05		Method: SW6020	
DUP		Sample ID: HS14041021-01DUP		Units: mg/L	Analysis Date: 19-May-2014 19:12
Client ID:		Run ID: ICPMS05_233909		SeqNo: 2841503	PrepDate: 05-May-2014 DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.001534	0.00500			0.001688 0 25 J
Barium	0.2332	0.00500			0.2448 4.87 25
Calcium	40.03	0.500			39.86 0.425 25
Chromium	U	0.00500			0.000808 0 25
Iron	0.05767	0.200			0.02831 0 25 J
Lead	U	0.00500			0.000162 0 25
Manganese	U	0.00500			0.000839 0 25
Nickel	U	0.00500			0.000385 0 25
Potassium	0.6265	0.200			0.6276 0.171 25
Selenium	0.002332	0.00500			0.002497 0 25 J
Sodium	33.98	0.200			34.06 0.236 25
Vanadium	0.009752	0.00500			0.01044 6.81 25

PDS		Sample ID: HS14041021-01BS		Units: mg/L	Analysis Date: 19-May-2014 19:24
Client ID:		Run ID: ICPMS05_233909		SeqNo: 2841508	PrepDate: DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.09825	0.00500	0.1	0.001688 96.6	75 - 125
Barium	0.3394	0.00500	0.1	0.2448 94.7	75 - 125
Calcium	48.14	0.500	10	39.86 82.8	75 - 125
Chromium	0.09021	0.00500	0.1	0.000808 89.4	75 - 125
Iron	9.029	0.200	10	0.02831 90.0	75 - 125
Lead	0.09862	0.00500	0.1	0.000162 98.5	75 - 125
Manganese	0.09044	0.00500	0.1	0.000839 89.6	75 - 125
Nickel	0.0905	0.00500	0.1	0.000385 90.1	75 - 125
Potassium	10	0.200	10	0.6276 93.7	75 - 125
Selenium	0.09926	0.00500	0.1	0.002497 96.8	75 - 125
Sodium	41.3	0.200	10	34.06 72.4	75 - 125 S
Vanadium	0.103	0.00500	0.1	0.01044 92.6	75 - 125

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: 81595		Instrument: ICPMS05		Method: SW6020						
SD	Sample ID: HS14041021-01 DIL SX	Units: mg/L		Analysis Date: 19-May-2014 19:27						
Client ID:	Run ID: ICPMS05_233909	SeqNo: 2841509		PrepDate:			DF: 5			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.0250					0.001688	0	10	
Barium	0.2444	0.0250					0.2448	0.173	10	
Calcium	42.41	2.50					39.86	6.4	10	
Chromium	U	0.0250					0.000808	0	10	
Iron	U	1.00					0.02831	0	10	
Lead	0.002954	0.0250					0.000162	0	10	J
Manganese	U	0.0250					0.000839	0	10	
Nickel	U	0.0250					0.000385	0	10	
Potassium	0.7936	1.00					0.6276	0	10	J
Selenium	0.008037	0.0250					0.002497	0	10	J
Sodium	34.56	1.00					34.06	1.48	10	
Vanadium	0.03894	0.0250					0.01044	0	10	
The following samples were analyzed in this batch:		HS14040954-01		HS14040954-03		HS14040954-05		HS14040954-07		
		HS14040954-09		HS14040954-11		HS14040954-13		HS14040954-15		
		HS14040954-17		HS14040954-19		HS14040954-21		HS14040954-23		
		HS14040954-25		HS14040954-27		HS14040954-29		HS14040954-31		
		HS14040954-33		HS14040954-35						

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: 81847		Instrument: HG03		Method: SW7470	
MBLK	Sample ID: GBLKW1-051414	Units: mg/L		Analysis Date: 14-May-2014 14:55	
Client ID:	Run ID: HG03_233437	SeqNo: 2834700		PrepDate: 14-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	U	0.000200			
LCS	Sample ID: GLCSW1-051414	Units: mg/L		Analysis Date: 14-May-2014 14:57	
Client ID:	Run ID: HG03_233437	SeqNo: 2834701		PrepDate: 14-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	0.00443	0.000200	0.005	0 88.6	80 - 124
MS	Sample ID: HS14050117-01MS	Units: mg/L		Analysis Date: 14-May-2014 15:11	
Client ID:	Run ID: HG03_233437	SeqNo: 2834704		PrepDate: 14-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	0.00459	0.000200	0.005	0.000001 91.8	80 - 124
MSD	Sample ID: HS14050117-01MSD	Units: mg/L		Analysis Date: 14-May-2014 15:13	
Client ID:	Run ID: HG03_233437	SeqNo: 2834705		PrepDate: 14-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	0.00509	0.000200	0.005	0.000001 102	80 - 124 0.00459 10.3 20
DUP	Sample ID: HS14050117-01DUP	Units: mg/L		Analysis Date: 14-May-2014 15:09	
Client ID:	Run ID: HG03_233437	SeqNo: 2834703		PrepDate: 14-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	U	0.000200		0.000001	0 20
The following samples were analyzed in this batch: HS14040954-23					

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232862		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140429	Units: ug/L		Analysis Date: 29-Apr-2014 13:09					
Client ID:	Run ID: VOA6_232862	SeqNo: 2815786		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	U	5.0							
1,1,2,2-Tetrachloroethane	U	5.0							
1,1,2-Trichloroethane	U	5.0							
1,1-Dichloroethane	U	5.0							
1,1-Dichloroethene	U	5.0							
1,2,4-Trimethylbenzene	U	5.0							
1,2-Dibromoethane	U	5.0							
1,2-Dichloroethane	U	5.0							
1,2-Dichloropropane	U	5.0							
1,3,5-Trimethylbenzene	U	5.0							
2-Butanone	U	10							
2-Hexanone	U	10							
4-Isopropyltoluene	U	5.0							
4-Methyl-2-pentanone	U	10							
Acetone	U	10							
Benzene	U	5.0							
Bromodichloromethane	U	5.0							
Bromoform	U	5.0							
Bromomethane	U	5.0							
Carbon disulfide	U	10							
Carbon tetrachloride	U	5.0							
Chlorobenzene	U	5.0							
Chloroethane	U	5.0							
Chloroform	U	5.0							
Chloromethane	U	5.0							
cis-1,2-Dichloroethene	U	5.0							
cis-1,3-Dichloropropene	U	5.0							
Dibromochloromethane	U	5.0							
Ethylbenzene	U	5.0							
Isopropylbenzene	U	5.0							
m,p-Xylene	U	10							
Methyl tert-butyl ether	U	5.0							
Methylene chloride	U	10							
Naphthalene	U	5.0							

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232862		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140429	Units: ug/L		Analysis Date: 29-Apr-2014 13:09					
Client ID:	Run ID: VOA6_232862	SeqNo: 2815786		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
n-Butylbenzene	U	5.0							
n-Propylbenzene	U	5.0							
o-Xylene	U	5.0							
sec-Butylbenzene	U	5.0							
Styrene	U	5.0							
Tetrachloroethene	U	5.0							
Toluene	U	5.0							
trans-1,2-Dichloroethene	U	5.0							
trans-1,3-Dichloropropene	U	5.0							
Trichloroethene	U	5.0							
Vinyl chloride	U	2.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	53.15	5.0	50	0	106	70 - 125			
Surr: 4-Bromofluorobenzene	48.88	5.0	50	0	97.8	72 - 125			
Surr: Dibromofluoromethane	52.71	5.0	50	0	105	71 - 125			
Surr: Toluene-d8	47.59	5.0	50	0	95.2	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232862		Instrument: VOA6		Method: SW8260					
LCS		Sample ID: VLCSW-140429		Units: ug/L		Analysis Date: 29-Apr-2014 12:21			
Client ID:		Run ID: VOA6_232862		SeqNo: 2815785		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	50.46	5.0	50	0	101	80 - 120			
1,1,2,2-Tetrachloroethane	47.58	5.0	50	0	95.2	72 - 120			
1,1,2-Trichloroethane	48.3	5.0	50	0	96.6	80 - 120			
1,1-Dichloroethane	49.69	5.0	50	0	99.4	76 - 120			
1,1-Dichloroethene	51.88	5.0	50	0	104	73 - 124			
1,2,4-Trimethylbenzene	47.81	5.0	50	0	95.6	68 - 123			
1,2-Dibromoethane	49.16	5.0	50	0	98.3	80 - 120			
1,2-Dichloroethane	48.33	5.0	50	0	96.7	78 - 120			
1,2-Dichloropropane	50.04	5.0	50	0	100	80 - 120			
1,3,5-Trimethylbenzene	47.94	5.0	50	0	95.9	80 - 120			
2-Butanone	105.4	10	100	0	105	58 - 132			
2-Hexanone	103.5	10	100	0	103	61 - 130			
4-Isopropyltoluene	48.85	5.0	50	0	97.7	79 - 120			
4-Methyl-2-pentanone	102.9	10	100	0	103	65 - 127			
Acetone	108.5	10	100	0	109	59 - 137			
Benzene	47.26	5.0	50	0	94.5	73 - 121			
Bromodichloromethane	51.88	5.0	50	0	104	75 - 125			
Bromoform	51.85	5.0	50	0	104	70 - 130			
Bromomethane	44.56	5.0	50	0	89.1	60 - 145			
Carbon disulfide	101.1	10	100	0	101	68 - 141			
Carbon tetrachloride	49.46	5.0	50	0	98.9	75 - 125			
Chlorobenzene	47.74	5.0	50	0	95.5	80 - 120			
Chloroethane	49.67	5.0	50	0	99.3	70 - 130			
Chloroform	50.41	5.0	50	0	101	70 - 130			
Chloromethane	51.38	5.0	50	0	103	67 - 123			
cis-1,2-Dichloroethene	51.39	5.0	50	0	103	78 - 120			
cis-1,3-Dichloropropene	52.81	5.0	50	0	106	80 - 120			
Dibromochloromethane	50.02	5.0	50	0	100	80 - 120			
Ethylbenzene	47.95	5.0	50	0	95.9	80 - 120			
Isopropylbenzene	48.58	5.0	50	0	97.2	75 - 130			
m,p-Xylene	96.59	10	100	0	96.6	78 - 121			
Methyl tert-butyl ether	52.2	5.0	50	0	104	70 - 125			
Methylene chloride	48.77	10	50	0	97.5	65 - 133			
Naphthalene	52.21	5.0	50	0	104	65 - 135			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232862		Instrument: VOA6		Method: SW8260	
LCS		Sample ID: VLCSW-140429		Units: ug/L	
Client ID:		Run ID: VOA6_232862		SeqNo: 2815785	
Analyte		Result		Analysis Date: 29-Apr-2014 12:21	
		PQL		PrepDate:	
		SPK Val		DF: 1	
		SPK Ref Value		Control Limit	
		%REC		RPD Ref Value	
				%RPD	
				RPD Limit Qual	
n-Butylbenzene		52.25		77 - 120	
n-Propylbenzene		48.57		78 - 120	
o-Xylene		48.08		80 - 120	
sec-Butylbenzene		48.26		78 - 120	
Styrene		49		80 - 120	
Tetrachloroethene		46.88		79 - 120	
Toluene		46.22		80 - 120	
trans-1,2-Dichloroethene		50.02		78 - 120	
trans-1,3-Dichloropropene		53.85		80 - 120	
Trichloroethene		50.08		80 - 120	
Vinyl chloride		50		70 - 127	
Xylenes, Total		144.7		80 - 120	
Surr: 1,2-Dichloroethane-d4		51.72		70 - 125	
Surr: 4-Bromofluorobenzene		50.07		72 - 125	
Surr: Dibromofluoromethane		51.65		71 - 125	
Surr: Toluene-d8		49.36		75 - 125	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232862		Instrument: VOA6		Method: SW8260	
MS		Sample ID: HS14040954-03MS		Units: ug/L	
Client ID: MW-108-0414		Run ID: VOA6_232862		SeqNo: 2815793	
				PrepDate: DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
1,1,1-Trichloroethane	527.5	50	500	0 105	80 - 120
1,1,2,2-Tetrachloroethane	447.4	50	500	0 89.5	72 - 120
1,1,2-Trichloroethane	475.2	50	500	4.468 94.1	80 - 120
1,1-Dichloroethane	503.1	50	500	0 101	76 - 120
1,1-Dichloroethene	545.4	50	500	0 109	73 - 124
1,2,4-Trimethylbenzene	490.8	50	500	35.04 91.2	68 - 123
1,2-Dibromoethane	467.8	50	500	0 93.6	80 - 120
1,2-Dichloroethane	483.4	50	500	12 94.3	78 - 120
1,2-Dichloropropane	497.1	50	500	0 99.4	80 - 120
1,3,5-Trimethylbenzene	468.5	50	500	8.31 92.0	80 - 120
2-Butanone	1008	100	1000	25.05 98.3	58 - 132
2-Hexanone	1050	100	1000	17.46 103	61 - 130
4-Isopropyltoluene	479.4	50	500	11.31 93.6	79 - 120
4-Methyl-2-pentanone	1044	100	1000	11.92 103	65 - 127
Acetone	1096	100	1000	46.78 105	59 - 137
Benzene	839.3	50	500	387.4 90.4	73 - 121
Bromodichloromethane	507.2	50	500	0 101	75 - 125
Bromoform	473.4	50	500	3.339 94.0	70 - 130
Bromomethane	309.9	50	500	0 62.0	60 - 145
Carbon disulfide	1066	100	1000	20.21 105	68 - 141
Carbon tetrachloride	482.6	50	500	92.8 78.0	75 - 125
Chlorobenzene	472.1	50	500	3.284 93.8	80 - 120
Chloroethane	1102	50	500	0 220	70 - 130 S
Chloroform	490.9	50	500	3.6 97.5	70 - 130
Chloromethane	477.5	50	500	0 95.5	67 - 123
cis-1,2-Dichloroethene	514.7	50	500	0 103	78 - 120
cis-1,3-Dichloropropene	512.4	50	500	0 102	80 - 120
Dibromochloromethane	481.4	50	500	0 96.3	80 - 120
Ethylbenzene	491.9	50	500	7.328 96.9	80 - 120
Isopropylbenzene	516.6	50	500	25.4 98.3	75 - 130
m,p-Xylene	1028	100	1000	51.83 97.6	78 - 121
Methyl tert-butyl ether	512.3	50	500	0 102	70 - 125
Methylene chloride	489.9	100	500	4.387 97.1	65 - 133
Naphthalene	500.5	50	500	52.95 89.5	65 - 135

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232862		Instrument: VOA6		Method: SW8260					
MS		Sample ID: HS14040954-03MS		Units: ug/L		Analysis Date: 29-Apr-2014 15:57			
Client ID: MW-108-0414		Run ID: VOA6_232862		SeqNo: 2815793		PrepDate:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
n-Butylbenzene	505.7	50	500	17.79	97.6	77 - 120			
n-Propylbenzene	496.3	50	500	25.04	94.3	78 - 120			
o-Xylene	484.3	50	500	5.322	95.8	80 - 120			
sec-Butylbenzene	473.9	50	500	13.56	92.1	78 - 120			
Styrene	490.6	50	500	3.215	97.5	80 - 120			
Tetrachloroethene	502.5	50	500	5.167	99.5	79 - 120			
Toluene	472.3	50	500	8.326	92.8	80 - 120			
trans-1,2-Dichloroethene	517.9	50	500	2.644	103	78 - 120			
trans-1,3-Dichloropropene	517.7	50	500	0	104	80 - 120			
Trichloroethene	510.5	50	500	3.262	101	80 - 120			
Vinyl chloride	543.4	20	500	0	109	70 - 127			
Xylenes, Total	1512	150	1500	57.16	97.0	80 - 120			
Surr: 1,2-Dichloroethane-d4	520.3	50	500	0	104	70 - 125			
Surr: 4-Bromofluorobenzene	512.9	50	500	0	103	72 - 125			
Surr: Dibromofluoromethane	506.5	50	500	0	101	71 - 125			
Surr: Toluene-d8	493.5	50	500	0	98.7	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232862		Instrument: VOA6		Method: SW8260					
MSD		Sample ID: HS14040954-03MSD		Units: ug/L		Analysis Date: 29-Apr-2014 16:21			
Client ID: MW-108-0414		Run ID: VOA6_232862		SeqNo: 2815794		PrepDate:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	531.1	50	500	0	106	80 - 120	527.5	0.685	20
1,1,2,2-Tetrachloroethane	457.5	50	500	0	91.5	72 - 120	447.4	2.22	20
1,1,2-Trichloroethane	480.5	50	500	4.468	95.2	80 - 120	475.2	1.11	20
1,1-Dichloroethane	499.4	50	500	0	99.9	76 - 120	503.1	0.743	20
1,1-Dichloroethene	531.9	50	500	0	106	73 - 124	545.4	2.51	20
1,2,4-Trimethylbenzene	499.6	50	500	35.04	92.9	68 - 123	490.8	1.76	20
1,2-Dibromoethane	487.6	50	500	0	97.5	80 - 120	467.8	4.16	20
1,2-Dichloroethane	499.3	50	500	12	97.5	78 - 120	483.4	3.23	20
1,2-Dichloropropane	497.4	50	500	0	99.5	80 - 120	497.1	0.0639	20
1,3,5-Trimethylbenzene	475.2	50	500	8.31	93.4	80 - 120	468.5	1.41	20
2-Butanone	1037	100	1000	25.05	101	58 - 132	1008	2.87	20
2-Hexanone	1105	100	1000	17.46	109	61 - 130	1050	5.08	20
4-Isopropyltoluene	497.5	50	500	11.31	97.2	79 - 120	479.4	3.71	20
4-Methyl-2-pentanone	1074	100	1000	11.92	106	65 - 127	1044	2.88	20
Acetone	1082	100	1000	46.78	104	59 - 137	1096	1.26	20
Benzene	844.5	50	500	387.4	91.4	73 - 121	839.3	0.619	20
Bromodichloromethane	516.6	50	500	0	103	75 - 125	507.2	1.85	20
Bromoform	485.8	50	500	3.339	96.5	70 - 130	473.4	2.6	20
Bromomethane	334.5	50	500	0	66.9	60 - 145	309.9	7.65	20
Carbon disulfide	1068	100	1000	20.21	105	68 - 141	1066	0.225	20
Carbon tetrachloride	484.2	50	500	92.8	78.3	75 - 125	482.6	0.346	20
Chlorobenzene	478.1	50	500	3.284	95.0	80 - 120	472.1	1.26	20
Chloroethane	1087	50	500	0	217	76 - 121	1102	1.35	20 S
Chloroform	495.9	50	500	3.6	98.5	70 - 130	490.9	1.01	20
Chloromethane	472.8	50	500	0	94.6	67 - 123	477.5	0.987	20
cis-1,2-Dichloroethene	509.8	50	500	0	102	78 - 120	514.7	0.951	20
cis-1,3-Dichloropropene	517.7	50	500	0	104	80 - 120	512.4	1.03	20
Dibromochloromethane	489	50	500	0	97.8	80 - 120	481.4	1.57	20
Ethylbenzene	496.6	50	500	7.328	97.9	80 - 120	491.9	0.958	20
Isopropylbenzene	524.4	50	500	25.4	99.8	75 - 130	516.6	1.48	20
m,p-Xylene	1031	100	1000	51.83	97.9	78 - 121	1028	0.307	20
Methyl tert-butyl ether	509.1	50	500	0	102	70 - 125	512.3	0.633	20
Methylene chloride	496.8	100	500	4.387	98.5	65 - 133	489.9	1.41	20
Naphthalene	536.6	50	500	52.95	96.7	65 - 135	500.5	6.96	20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232862		Instrument: VOA6		Method: SW8260					
MSD		Sample ID: HS14040954-03MSD		Units: ug/L		Analysis Date: 29-Apr-2014 16:21			
Client ID: MW-108-0414		Run ID: VOA6_232862		SeqNo: 2815794		PrepDate:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
n-Butylbenzene	526.2	50	500	17.79	102	77 - 120	505.7	3.97	20
n-Propylbenzene	496.8	50	500	25.04	94.3	78 - 120	496.3	0.0932	20
o-Xylene	488.3	50	500	5.322	96.6	80 - 120	484.3	0.807	20
sec-Butylbenzene	494.3	50	500	13.56	96.1	78 - 120	473.9	4.22	20
Styrene	500.2	50	500	3.215	99.4	80 - 120	490.6	1.94	20
Tetrachloroethene	511.4	50	500	5.167	101	79 - 120	502.5	1.75	20
Toluene	479.8	50	500	8.326	94.3	80 - 120	472.3	1.58	20
trans-1,2-Dichloroethene	517	50	500	2.644	103	78 - 120	517.9	0.181	20
trans-1,3-Dichloropropene	519.8	50	500	0	104	80 - 120	517.7	0.391	20
Trichloroethene	511.3	50	500	3.262	102	80 - 120	510.5	0.171	20
Vinyl chloride	540.5	20	500	0	108	70 - 127	543.4	0.538	20
Xylenes, Total	1519	150	1500	57.16	97.5	78 - 121	1512	0.468	20
Surr: 1,2-Dichloroethane-d4	520.3	50	500	0	104	70 - 125	520.3	0.00575	20
Surr: 4-Bromofluorobenzene	509.3	50	500	0	102	72 - 125	512.9	0.703	20
Surr: Dibromofluoromethane	506.3	50	500	0	101	71 - 125	506.5	0.0434	20
Surr: Toluene-d8	499.4	50	500	0	99.9	75 - 125	493.5	1.18	20
The following samples were analyzed in this batch:									
HS14040954-01		HS14040954-03		HS14040954-05		HS14040954-07			
HS14040954-09		HS14040954-11		HS14040954-13		HS14040954-15			
HS14040954-17		HS14040954-19		HS14040954-21		HS14040954-23			
HS14040954-25		HS14040954-27		HS14040954-29		HS14040954-31			
HS14040954-33		HS14040954-35							

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232988		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140429	Units: ug/L		Analysis Date: 30-Apr-2014 16:37					
Client ID:	Run ID: VOA6_232988	SeqNo: 2818215		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	U	5.0							
1,1,2,2-Tetrachloroethane	U	5.0							
1,1,2-Trichloroethane	U	5.0							
1,1-Dichloroethane	U	5.0							
1,1-Dichloroethene	U	5.0							
1,2,4-Trimethylbenzene	U	5.0							
1,2-Dibromoethane	U	5.0							
1,2-Dichloroethane	U	5.0							
1,2-Dichloropropane	U	5.0							
1,3,5-Trimethylbenzene	U	5.0							
2-Butanone	U	10							
2-Hexanone	U	10							
4-Isopropyltoluene	U	5.0							
4-Methyl-2-pentanone	U	10							
Acetone	U	10							
Benzene	U	5.0							
Bromodichloromethane	U	5.0							
Bromoform	U	5.0							
Bromomethane	U	5.0							
Carbon disulfide	U	10							
Carbon tetrachloride	U	5.0							
Chlorobenzene	U	5.0							
Chloroethane	U	5.0							
Chloroform	U	5.0							
Chloromethane	U	5.0							
cis-1,2-Dichloroethene	U	5.0							
cis-1,3-Dichloropropene	U	5.0							
Dibromochloromethane	U	5.0							
Ethylbenzene	U	5.0							
Isopropylbenzene	U	5.0							
m,p-Xylene	U	10							
Methyl tert-butyl ether	U	5.0							
Methylene chloride	U	10							
Naphthalene	U	5.0							

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232988		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140429	Units: ug/L		Analysis Date: 30-Apr-2014 16:37					
Client ID:	Run ID: VOA6_232988	SeqNo: 2818215		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
n-Butylbenzene	U	5.0							
n-Propylbenzene	U	5.0							
o-Xylene	U	5.0							
sec-Butylbenzene	U	5.0							
Styrene	U	5.0							
Tetrachloroethene	U	5.0							
Toluene	U	5.0							
trans-1,2-Dichloroethene	U	5.0							
trans-1,3-Dichloropropene	U	5.0							
Trichloroethene	U	5.0							
Vinyl chloride	U	2.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	52.87	5.0	50	0	106	70 - 125			
Surr: 4-Bromofluorobenzene	50.2	5.0	50	0	100	72 - 125			
Surr: Dibromofluoromethane	51.52	5.0	50	0	103	71 - 125			
Surr: Toluene-d8	48.43	5.0	50	0	96.9	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232988		Instrument: VOA6		Method: SW8260						
LCS	Sample ID: VLC	SW-140429	Units: ug/L			Analysis Date: 30-Apr-2014 15:49				
Client ID:		Run ID: VOA6_232988		SeqNo: 2818214		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	48.67	5.0	50	0	97.3	80 - 120				
1,1,2,2-Tetrachloroethane	46.58	5.0	50	0	93.2	72 - 120				
1,1,2-Trichloroethane	46.81	5.0	50	0	93.6	80 - 120				
1,1-Dichloroethane	48.53	5.0	50	0	97.1	76 - 120				
1,1-Dichloroethene	47.86	5.0	50	0	95.7	73 - 124				
1,2,4-Trimethylbenzene	45.55	5.0	50	0	91.1	68 - 123				
1,2-Dibromoethane	47.72	5.0	50	0	95.4	80 - 120				
1,2-Dichloroethane	47.36	5.0	50	0	94.7	78 - 120				
1,2-Dichloropropane	48.21	5.0	50	0	96.4	80 - 120				
1,3,5-Trimethylbenzene	45.92	5.0	50	0	91.8	80 - 120				
2-Butanone	105.2	10	100	0	105	58 - 132				
2-Hexanone	101	10	100	0	101	61 - 130				
4-Isopropyltoluene	46.16	5.0	50	0	92.3	79 - 120				
4-Methyl-2-pentanone	99.84	10	100	0	99.8	65 - 127				
Acetone	123.3	10	100	0	123	59 - 137				
Benzene	45.65	5.0	50	0	91.3	73 - 121				
Bromodichloromethane	49.51	5.0	50	0	99.0	75 - 125				
Bromoform	48.99	5.0	50	0	98.0	70 - 130				
Bromomethane	41.67	5.0	50	0	83.3	60 - 145				
Carbon disulfide	95.77	10	100	0	95.8	68 - 141				
Carbon tetrachloride	45.11	5.0	50	0	90.2	75 - 125				
Chlorobenzene	45.48	5.0	50	0	91.0	80 - 120				
Chloroethane	47.02	5.0	50	0	94.0	70 - 130				
Chloroform	47.73	5.0	50	0	95.5	70 - 130				
Chloromethane	43.84	5.0	50	0	87.7	67 - 123				
cis-1,2-Dichloroethene	49.31	5.0	50	0	98.6	78 - 120				
cis-1,3-Dichloropropene	49.91	5.0	50	0	99.8	80 - 120				
Dibromochloromethane	47.87	5.0	50	0	95.7	80 - 120				
Ethylbenzene	46.11	5.0	50	0	92.2	80 - 120				
Isopropylbenzene	46.25	5.0	50	0	92.5	75 - 130				
m,p-Xylene	92.15	10	100	0	92.1	78 - 121				
Methyl tert-butyl ether	50.26	5.0	50	0	101	70 - 125				
Methylene chloride	47.47	10	50	0	94.9	65 - 133				
Naphthalene	51.26	5.0	50	0	103	65 - 135				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232988		Instrument: VOA6		Method: SW8260	
LCS		Sample ID: VLCSW-140429		Units: ug/L	
Client ID:		Run ID: VOA6_232988		SeqNo: 2818214	
Analyte		Result		Analysis Date: 30-Apr-2014 15:49	
		PQL		PrepDate: DF: 1	
		SPK Val		SPK Ref Value %REC	
				Control Limit	
				RPD Ref Value %RPD	
				RPD Limit Qual	
n-Butylbenzene		49.42		50 0 98.8 77 - 120	
n-Propylbenzene		46.33		50 0 92.7 78 - 120	
o-Xylene		45.87		50 0 91.7 80 - 120	
sec-Butylbenzene		45.42		50 0 90.8 78 - 120	
Styrene		47.43		50 0 94.9 80 - 120	
Tetrachloroethene		44.84		50 0 89.7 79 - 120	
Toluene		44.46		50 0 88.9 80 - 120	
trans-1,2-Dichloroethene		48.74		50 0 97.5 78 - 120	
trans-1,3-Dichloropropene		51.65		50 0 103 80 - 120	
Trichloroethene		48.05		50 0 96.1 80 - 120	
Vinyl chloride		48.31		50 0 96.6 70 - 127	
Xylenes, Total		138		150 0 92.0 80 - 120	
Surr: 1,2-Dichloroethane-d4		52.36		50 0 105 70 - 125	
Surr: 4-Bromofluorobenzene		50.54		50 0 101 72 - 125	
Surr: Dibromofluoromethane		51.4		50 0 103 71 - 125	
Surr: Toluene-d8		48.96		50 0 97.9 75 - 125	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232988		Instrument: VOA6		Method: SW8260	
MS		Sample ID: HS14041142-01MS		Units: ug/L	
Client ID:		Run ID: VOA6_232988		Analysis Date: 01-May-2014 00:14	
		SeqNo: 2818227		PrepDate: DF: 25	
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
1,1,1-Trichloroethane	1305	120	1250	0 104	80 - 120
1,1,2,2-Tetrachloroethane	1110	120	1250	0 88.8	72 - 120
1,1,2-Trichloroethane	1168	120	1250	0 93.5	80 - 120
1,1-Dichloroethane	1261	120	1250	0 101	76 - 120
1,1-Dichloroethene	1312	120	1250	0 105	73 - 124
1,2,4-Trimethylbenzene	1141	120	1250	0 91.3	68 - 123
1,2-Dibromoethane	1204	120	1250	0 96.3	80 - 120
1,2-Dichloroethane	1186	120	1250	0 94.8	78 - 120
1,2-Dichloropropane	1236	120	1250	0 98.9	80 - 120
1,3,5-Trimethylbenzene	1143	120	1250	0 91.4	80 - 120
2-Butanone	2514	250	2500	0 101	58 - 132
2-Hexanone	2446	250	2500	0 97.9	61 - 130
4-Isopropyltoluene	1152	120	1250	0 92.2	79 - 120
4-Methyl-2-pentanone	2458	250	2500	0 98.3	65 - 127
Acetone	2932	250	2500	0 117	59 - 137
Benzene	1155	120	1250	0 92.4	73 - 121
Bromodichloromethane	1267	120	1250	0 101	75 - 125
Bromoform	1203	120	1250	0 96.3	70 - 130
Bromomethane	959.8	120	1250	0 76.8	60 - 145
Carbon disulfide	2595	250	2500	0 104	68 - 141
Carbon tetrachloride	1198	120	1250	0 95.8	75 - 125
Chlorobenzene	1161	120	1250	0 92.8	80 - 120
Chloroethane	1253	120	1250	0 100	70 - 130
Chloroform	2313	120	1250	1056 101	70 - 130
Chloromethane	1153	120	1250	0 92.2	67 - 123
cis-1,2-Dichloroethene	1277	120	1250	0 102	78 - 120
cis-1,3-Dichloropropene	1235	120	1250	0 98.8	80 - 120
Dibromochloromethane	1198	120	1250	0 95.9	80 - 120
Ethylbenzene	1184	120	1250	0 94.7	80 - 120
Isopropylbenzene	1211	120	1250	0 96.9	75 - 130
m,p-Xylene	2371	250	2500	0 94.9	78 - 121
Methyl tert-butyl ether	1247	120	1250	0 99.7	70 - 125
Methylene chloride	1208	250	1250	0 96.6	65 - 133
Naphthalene	1159	120	1250	0 92.7	65 - 135

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232988		Instrument: VOA6		Method: SW8260	
MS	Sample ID: HS14041142-01MS	Units: ug/L		Analysis Date: 01-May-2014 00:14	
Client ID:	Run ID: VOA6_232988	SeqNo: 2818227		PrepDate:	DF: 25
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
n-Butylbenzene	1223	120	1250	0 97.8	77 - 120
n-Propylbenzene	1172	120	1250	0 93.8	78 - 120
o-Xylene	1188	120	1250	0 95.0	80 - 120
sec-Butylbenzene	1148	120	1250	0 91.9	78 - 120
Styrene	1205	120	1250	0 96.4	80 - 120
Tetrachloroethene	1436	120	1250	0 115	79 - 120
Toluene	1151	120	1250	0 92.0	80 - 120
trans-1,2-Dichloroethene	1270	120	1250	0 102	78 - 120
trans-1,3-Dichloropropene	1236	120	1250	0 98.9	80 - 120
Trichloroethene	1250	120	1250	0 100	80 - 120
Vinyl chloride	1335	50	1250	0 107	70 - 127
Xylenes, Total	3559	380	3750	0 94.9	80 - 120
Surr: 1,2-Dichloroethane-d4	1288	120	1250	0 103	70 - 125
Surr: 4-Bromofluorobenzene	1271	120	1250	0 102	72 - 125
Surr: Dibromofluoromethane	1282	120	1250	0 103	71 - 125
Surr: Toluene-d8	1217	120	1250	0 97.4	75 - 125

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232988		Instrument: VOA6		Method: SW8260					
MSD		Sample ID: HS14041142-01MSD		Units: ug/L		Analysis Date: 01-May-2014 00:39			
Client ID:		Run ID: VOA6_232988		SeqNo: 2818228		PrepDate:		DF: 25	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	1308	120	1250	0	105	80 - 120	1305	0.243	20
1,1,2,2-Tetrachloroethane	1152	120	1250	0	92.1	72 - 120	1110	3.68	20
1,1,2-Trichloroethane	1190	120	1250	0	95.2	80 - 120	1168	1.85	20
1,1-Dichloroethane	1287	120	1250	0	103	76 - 120	1261	2	20
1,1-Dichloroethene	1346	120	1250	0	108	73 - 124	1312	2.56	20
1,2,4-Trimethylbenzene	1177	120	1250	0	94.1	68 - 123	1141	3.04	20
1,2-Dibromoethane	1185	120	1250	0	94.8	80 - 120	1204	1.6	20
1,2-Dichloroethane	1205	120	1250	0	96.4	78 - 120	1186	1.61	20
1,2-Dichloropropane	1227	120	1250	0	98.2	80 - 120	1236	0.699	20
1,3,5-Trimethylbenzene	1189	120	1250	0	95.1	80 - 120	1143	3.99	20
2-Butanone	2585	250	2500	0	103	58 - 132	2514	2.79	20
2-Hexanone	2530	250	2500	0	101	61 - 130	2446	3.35	20
4-Isopropyltoluene	1201	120	1250	0	96.1	79 - 120	1152	4.15	20
4-Methyl-2-pentanone	2539	250	2500	0	102	65 - 127	2458	3.25	20
Acetone	2957	250	2500	0	118	59 - 137	2932	0.847	20
Benzene	1179	120	1250	0	94.3	73 - 121	1155	2.04	20
Bromodichloromethane	1286	120	1250	0	103	75 - 125	1267	1.44	20
Bromoform	1217	120	1250	0	97.3	70 - 130	1203	1.09	20
Bromomethane	1103	120	1250	0	88.3	60 - 145	959.8	13.9	20
Carbon disulfide	2582	250	2500	0	103	68 - 141	2595	0.493	20
Carbon tetrachloride	1234	120	1250	0	98.8	75 - 125	1198	2.99	20
Chlorobenzene	1173	120	1250	0	93.9	80 - 120	1161	1.09	20
Chloroethane	1247	120	1250	0	99.7	76 - 121	1253	0.511	20
Chloroform	2319	120	1250	1056	101	70 - 130	2313	0.255	20
Chloromethane	1182	120	1250	0	94.6	67 - 123	1153	2.51	20
cis-1,2-Dichloroethene	1289	120	1250	0	103	78 - 120	1277	0.952	20
cis-1,3-Dichloropropene	1252	120	1250	0	100	80 - 120	1235	1.32	20
Dibromochloromethane	1206	120	1250	0	96.5	80 - 120	1198	0.6	20
Ethylbenzene	1209	120	1250	0	96.7	80 - 120	1184	2.14	20
Isopropylbenzene	1213	120	1250	0	97.0	75 - 130	1211	0.117	20
m,p-Xylene	2399	250	2500	0	95.9	78 - 121	2371	1.14	20
Methyl tert-butyl ether	1266	120	1250	0	101	70 - 125	1247	1.54	20
Methylene chloride	1222	250	1250	0	97.8	65 - 133	1208	1.22	20
Naphthalene	1273	120	1250	0	102	65 - 135	1159	9.39	20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232988		Instrument: VOA6		Method: SW8260	
MSD	Sample ID: HS14041142-01MSD	Units: ug/L		Analysis Date: 01-May-2014 00:39	
Client ID:	Run ID: VOA6_232988	SeqNo: 2818228		PrepDate:	DF: 25
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
n-Butylbenzene	1265	120	1250	0 101	77 - 120 1223 3.4 20
n-Propylbenzene	1201	120	1250	0 96.1	78 - 120 1172 2.45 20
o-Xylene	1185	120	1250	0 94.8	80 - 120 1188 0.285 20
sec-Butylbenzene	1203	120	1250	0 96.2	78 - 120 1148 4.64 20
Styrene	1220	120	1250	0 97.6	80 - 120 1205 1.21 20
Tetrachloroethene	1492	120	1250	0 119	79 - 120 1436 3.87 20
Toluene	1158	120	1250	0 92.6	80 - 120 1151 0.653 20
trans-1,2-Dichloroethene	1308	120	1250	0 105	78 - 120 1270 2.98 20
trans-1,3-Dichloropropene	1264	120	1250	0 101	80 - 120 1236 2.23 20
Trichloroethene	1272	120	1250	0 102	80 - 120 1250 1.73 20
Vinyl chloride	1332	50	1250	0 107	70 - 127 1335 0.228 20
Xylenes, Total	3583	380	3750	0 95.5	78 - 121 3559 0.665 20
Surr: 1,2-Dichloroethane-d4	1310	120	1250	0 105	70 - 125 1288 1.73 20
Surr: 4-Bromofluorobenzene	1275	120	1250	0 102	72 - 125 1271 0.296 20
Surr: Dibromofluoromethane	1300	120	1250	0 104	71 - 125 1282 1.39 20
Surr: Toluene-d8	1227	120	1250	0 98.2	75 - 125 1217 0.776 20

The following samples were analyzed in this batch: HS14040954-37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232567		Instrument: Balance1		Method: M2540C	
MBLK	Sample ID: WBLK-042314	Units: mg/L		Analysis Date: 23-Apr-2014 18:50	
Client ID:	Run ID: Balance1_232567	SeqNo: 2809552		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)					
		U	10.0		
LCS	Sample ID: WLCS-042314	Units: mg/L		Analysis Date: 23-Apr-2014 18:50	
Client ID:	Run ID: Balance1_232567	SeqNo: 2809553		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)					
		1030	10.0	1000	0 103 85 - 115
DUP	Sample ID: HS14040954-27DUP	Units: mg/L		Analysis Date: 23-Apr-2014 18:50	
Client ID: Dup-9-0414	Run ID: Balance1_232567	SeqNo: 2809551		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)					
		2500	10.0		2400 4.08 10
DUP	Sample ID: HS14040750-01DUP	Units: mg/L		Analysis Date: 23-Apr-2014 18:50	
Client ID:	Run ID: Balance1_232567	SeqNo: 2809532		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)					
		842	10.0		884 4.87 10
The following samples were analyzed in this batch:					
		HS14040954-01	HS14040954-03	HS14040954-05	HS14040954-07
		HS14040954-09	HS14040954-11	HS14040954-13	HS14040954-15
		HS14040954-17	HS14040954-19	HS14040954-21	HS14040954-23
		HS14040954-25	HS14040954-27		

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232718		Instrument: Balance1		Method: M2540C					
MBLK	Sample ID: WBLK-042514	Units: mg/L		Analysis Date: 25-Apr-2014 18:30					
Client ID:	Run ID: Balance1_232718	SeqNo: 2813058		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)		U	10.0						
LCS	Sample ID: WLCS-042514	Units: mg/L		Analysis Date: 25-Apr-2014 18:30					
Client ID:	Run ID: Balance1_232718	SeqNo: 2813059		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)		1076	10.0	1000	0 108	85 - 115			
DUP	Sample ID: HS14040983-01DUP	Units: mg/L		Analysis Date: 25-Apr-2014 18:30					
Client ID:	Run ID: Balance1_232718	SeqNo: 2813057		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)		298	10.0			314	5.23	10	
DUP	Sample ID: HS14040842-01DUP	Units: mg/L		Analysis Date: 25-Apr-2014 18:30					
Client ID:	Run ID: Balance1_232718	SeqNo: 2813044		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)		680	10.0			658	3.29	10	
The following samples were anayzed in this batch:									
HS14040954-29		HS14040954-31		HS14040954-33		HS14040954-35			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R232994		Instrument: UV-2450		Method: SW9012	
MBLK	Sample ID: MBLK-232994	Units: mg/L		Analysis Date: 01-May-2014 14:00	
Client ID:	Run ID: UV-2450_232994	SeqNo: 2818304		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	U	0.0200			
LCS	Sample ID: LCS-232994	Units: mg/L		Analysis Date: 01-May-2014 14:00	
Client ID:	Run ID: UV-2450_232994	SeqNo: 2818305		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	0.176	0.0200	0.2	0 88.0	80 - 120
LCSD	Sample ID: LCSD-232994	Units: mg/L		Analysis Date: 01-May-2014 14:00	
Client ID:	Run ID: UV-2450_232994	SeqNo: 2818306		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	0.177	0.0200	0.2	0 88.5	80 - 120 0.176 0.567 20
MS	Sample ID: HS14040954-25MS	Units: mg/L		Analysis Date: 01-May-2014 14:00	
Client ID: UG-3R-0414	Run ID: UV-2450_232994	SeqNo: 2818307		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	0.106	0.0200	0.2	0 53.0	80 - 120 S
MSD	Sample ID: HS14040954-25MSD	Units: mg/L		Analysis Date: 01-May-2014 14:00	
Client ID: UG-3R-0414	Run ID: UV-2450_232994	SeqNo: 2818308		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	0.069	0.0200	0.2	0 34.5	80 - 120 0.106 42.3 25 SR
The following samples were analyzed in this batch:					
HS14040954-09		HS14040954-11		HS14040954-13	
HS14040954-23		HS14040954-25		HS14040954-27	
HS14040954-31		HS14040954-35		HS14040954-17	
				HS14040954-29	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R233144		Instrument: ICS3000		Method: E300						
MBLK	Sample ID: WBLKW2	Units: mg/L				Analysis Date: 03-May-2014 23:49				
Client ID:		Run ID: ICS3000_233144	SeqNo: 2821970		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.500								
Fluoride	U	0.100								
Sulfate	U	0.500								
LCS	Sample ID: WLCSW2	Units: mg/L				Analysis Date: 04-May-2014 00:15				
Client ID:		Run ID: ICS3000_233144	SeqNo: 2821971		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.44	0.500	20	0	102	90 - 110				
Fluoride	3.998	0.100	4	0	100.0	90 - 110				
Sulfate	20.63	0.500	20	0	103	90 - 110				
MS	Sample ID: HS14040954-33MS	Units: mg/L				Analysis Date: 04-May-2014 08:26				
Client ID: MW-53-0414		Run ID: ICS3000_233144	SeqNo: 2821990		PrepDate:		DF: 50			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	603.2	25.0	500	95.42	102	80 - 120				
Fluoride	111.8	5.00	100	1.12	111	80 - 120				
Sulfate	1703	25.0	500	1186	103	80 - 120				
MSD	Sample ID: HS14040954-33MSD	Units: mg/L				Analysis Date: 04-May-2014 08:52				
Client ID: MW-53-0414		Run ID: ICS3000_233144	SeqNo: 2821991		PrepDate:		DF: 50			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	605.1	25.0	500	95.42	102	80 - 120	603.2	0.309	20	
Fluoride	111.7	5.00	100	1.12	111	80 - 120	111.8	0.0761	20	
Sulfate	1702	25.0	500	1186	103	80 - 120	1703	0.0479	20	
The following samples were analyzed in this batch:		HS14040954-01		HS14040954-03		HS14040954-05		HS14040954-07		
		HS14040954-09		HS14040954-11		HS14040954-13		HS14040954-15		
		HS14040954-17		HS14040954-19		HS14040954-21		HS14040954-23		
		HS14040954-25		HS14040954-27		HS14040954-29		HS14040954-31		
		HS14040954-33		HS14040954-35						

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14040954
 Project: SA Artesia Refinery - NCL

QC BATCH REPORT

Batch ID: R233724		Instrument: ICS2100		Method: E300	
MBLK	Sample ID: WBLKW	Units: mg/L		Analysis Date: 13-May-2014 09:52	
Client ID:	Run ID: ICS2100_233724	SeqNo: 2835701		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	U	0.200			

LCS	Sample ID: WLCSW	Units: mg/L		Analysis Date: 13-May-2014 10:06	
Client ID:	Run ID: ICS2100_233724	SeqNo: 2835702		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	8.009	0.200	8	0 100	90 - 110

MS	Sample ID: HS14040954-29MS	Units: mg/L		Analysis Date: 13-May-2014 07:41	
Client ID: UG-1-0414	Run ID: ICS2100_233724	SeqNo: 2835694		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	27.48	1.00	20	10.06 87.1	80 - 120

MSD	Sample ID: HS14040954-29MSD	Units: mg/L		Analysis Date: 13-May-2014 07:55	
Client ID: UG-1-0414	Run ID: ICS2100_233724	SeqNo: 2835695		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	26.86	1.00	20	10.06 84.0	80 - 120 27.48 2.29 20

The following samples were analyzed in this batch:					
HS14040954-01	HS14040954-03	HS14040954-05	HS14040954-07		
HS14040954-09	HS14040954-11	HS14040954-13	HS14040954-15		
HS14040954-17	HS14040954-19	HS14040954-21	HS14040954-23		
HS14040954-25	HS14040954-27	HS14040954-29	HS14040954-31		
HS14040954-33	HS14040954-35				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
WorkOrder: HS14040954

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	AR - 2014	27-Mar-2015
California	2919	31-Jul-2015
Dept of Defense	L2231 Rev 3-20-2014	22-Dec-2015
Illinois	003403	09-May-2015
Kansas	E-10352 8/15/2013-2014	01-Oct-2014
Kentucky	KY 2014-2015	30-Apr-2015
Louisiana	03087 2014/2015	30-Jun-2015
North Carolina	624 - 2014	31-Dec-2014
North Dakota	R-193 2025	30-Apr-2015
Oklahoma	2014-128	31-Aug-2015
Texas	TX104704231-14-13	30-Apr-2015

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
Work Order: HS14040954

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS14040954-01	NCL-31-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-01	NCL-31-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-01	NCL-31-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-01	NCL-31-0414	Login	22-Apr-14 03:51	DRC	VW-3
HS14040954-01	NCL-31-0414	Login	22-Apr-14 03:51	DRC	TPH C2
HS14040954-02	NCL-31-0414-D	Login	22-Apr-14 03:51	DRC	17F
HS14040954-03	MW-108-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-03	MW-108-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-03	MW-108-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-03	MW-108-0414	Login	22-Apr-14 03:51	DRC	VW-3
HS14040954-03	MW-108-0414	Login	22-Apr-14 03:51	DRC	TPH C2
HS14040954-04	MW-108-0414-D	Login	22-Apr-14 03:51	DRC	17F
HS14040954-05	NCL-44-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-05	NCL-44-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-05	NCL-44-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-05	NCL-44-0414	Login	22-Apr-14 03:51	DRC	VW-3
HS14040954-05	NCL-44-0414	Login	22-Apr-14 03:51	DRC	TPH C2
HS14040954-06	NCL-44-0414-D	Login	22-Apr-14 03:51	DRC	17F
HS14040954-07	NCL-33-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-07	NCL-33-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-07	NCL-33-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-07	NCL-33-0414	Login	22-Apr-14 03:51	DRC	VW-3
HS14040954-07	NCL-33-0414	Login	22-Apr-14 03:51	DRC	TPH C2
HS14040954-08	NCL-33-0414-D	Login	22-Apr-14 03:51	DRC	17F
HS14040954-09	MW-18-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-09	MW-18-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-09	MW-18-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-09	MW-18-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-09	MW-18-0414	Login	22-Apr-14 03:51	DRC	VW-3
HS14040954-09	MW-18-0414	Login	22-Apr-14 03:51	DRC	TPH C2
HS14040954-10	MW-18-0414-D	Login	22-Apr-14 03:51	DRC	17F
HS14040954-11	MW-55-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-11	MW-55-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-11	MW-55-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-11	MW-55-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-11	MW-55-0414	Login	22-Apr-14 03:51	DRC	VW-3
HS14040954-11	MW-55-0414	Login	22-Apr-14 03:51	DRC	BTEX A1
HS14040954-11	MW-55-0414	Login	22-Apr-14 03:51	DRC	TPH C2
HS14040954-12	MW-55-04174-D	Login	22-Apr-14 03:51	DRC	17F
HS14040954-13	Dup-08-0414	Login	22-Apr-14 03:51	DRC	17F

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
Work Order: HS14040954

SAMPLE TRACKING

HS14040954-13	Dup-08-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-13	Dup-08-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-13	Dup-08-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-13	Dup-08-0414	Login	22-Apr-14 03:51	DRC	VW-3
HS14040954-13	Dup-08-0414	Login	22-Apr-14 03:51	DRC	BTEX A1
HS14040954-13	Dup-08-0414	Login	22-Apr-14 03:51	DRC	TPH C2
HS14040954-14	Dup-08-0414-D	Login	22-Apr-14 03:51	DRC	17F
HS14040954-15	MW-56-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-15	MW-56-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-15	MW-56-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-15	MW-56-0414	Login	22-Apr-14 03:51	DRC	VW-3
HS14040954-15	MW-56-0414	Login	22-Apr-14 03:51	DRC	TPH C2
HS14040954-16	MW-56-0414-D	Login	22-Apr-14 03:51	DRC	17F
HS14040954-17	MW-45-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-17	MW-45-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-17	MW-45-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-17	MW-45-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-17	MW-45-0414	Login	22-Apr-14 03:51	DRC	VW-3
HS14040954-17	MW-45-0414	Login	22-Apr-14 03:51	DRC	TPH C2
HS14040954-18	MW-45-0414-D	Login	22-Apr-14 03:51	DRC	17F
HS14040954-19	NCL-49-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-19	NCL-49-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-19	NCL-49-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-19	NCL-49-0414	Login	22-Apr-14 03:51	DRC	VW-3
HS14040954-19	NCL-49-0414	Login	22-Apr-14 03:51	DRC	TPH C2
HS14040954-20	NCL-49-0414-D	Login	22-Apr-14 03:51	DRC	17F
HS14040954-21	MW-54A-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-21	MW-54A-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-21	MW-54A-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-21	MW-54A-0414	Login	22-Apr-14 03:51	DRC	VW-3
HS14040954-21	MW-54A-0414	Login	22-Apr-14 03:51	DRC	TPH C2
HS14040954-22	MW-54A-0414-D	Login	22-Apr-14 03:51	DRC	17F
HS14040954-23	EB-12-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-23	EB-12-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-23	EB-12-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-23	EB-12-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-23	EB-12-0414	Login	22-Apr-14 03:51	DRC	VW-3
HS14040954-23	EB-12-0414	Login	22-Apr-14 03:51	DRC	BTEX A1
HS14040954-23	EB-12-0414	Login	22-Apr-14 03:51	DRC	TPH C2
HS14040954-24	EB-12-0414-D	Login	22-Apr-14 03:51	DRC	17F
HS14040954-25	UG-3R-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-25	UG-3R-0414	Login	22-Apr-14 03:51	DRC	17F

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
Work Order: HS14040954

SAMPLE TRACKING

HS14040954-25	UG-3R-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-25	UG-3R-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-25	UG-3R-0414	Login	22-Apr-14 03:51	DRC	VW-3
HS14040954-25	UG-3R-0414	Login	22-Apr-14 03:51	DRC	BTEX A1
HS14040954-25	UG-3R-0414	Login	22-Apr-14 03:51	DRC	TPH C2
HS14040954-26	UG-3R-0414-D	Login	22-Apr-14 03:51	DRC	17F
HS14040954-27	Dup-9-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-27	Dup-9-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-27	Dup-9-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-27	Dup-9-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-27	Dup-9-0414	Login	22-Apr-14 03:51	DRC	VW-3
HS14040954-27	Dup-9-0414	Login	22-Apr-14 03:51	DRC	BTEX A1
HS14040954-27	Dup-9-0414	Login	22-Apr-14 03:51	DRC	TPH C2
HS14040954-28	Dup-9-0414-D	Login	22-Apr-14 03:51	DRC	17F
HS14040954-29	UG-1-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-29	UG-1-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-29	UG-1-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-29	UG-1-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-29	UG-1-0414	Login	22-Apr-14 03:51	DRC	VW-3
HS14040954-29	UG-1-0414	Login	22-Apr-14 03:51	DRC	BTEX A1
HS14040954-29	UG-1-0414	Login	22-Apr-14 03:51	DRC	TPH C2
HS14040954-30	UG-1-0414-D	Login	22-Apr-14 03:51	DRC	17F
HS14040954-31	UG-2-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-31	UG-2-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-31	UG-2-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-31	UG-2-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-31	UG-2-0414	Login	22-Apr-14 03:51	DRC	VW-3
HS14040954-31	UG-2-0414	Login	22-Apr-14 03:51	DRC	BTEX A1
HS14040954-31	UG-2-0414	Login	22-Apr-14 03:51	DRC	TPH C2
HS14040954-32	UG-2-0414-D	Login	22-Apr-14 03:51	DRC	17F
HS14040954-33	MW-53-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-33	MW-53-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-33	MW-53-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-33	MW-53-0414	Login	22-Apr-14 03:51	DRC	VW-3
HS14040954-33	MW-53-0414	Login	22-Apr-14 03:51	DRC	TPH C2
HS14040954-34	MW-53-0414-D	Login	22-Apr-14 03:51	DRC	17F
HS14040954-35	EB-13-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-35	EB-13-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-35	EB-13-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-35	EB-13-0414	Login	22-Apr-14 03:51	DRC	17F
HS14040954-35	EB-13-0414	Login	22-Apr-14 03:51	DRC	VW-3
HS14040954-35	EB-13-0414	Login	22-Apr-14 03:51	DRC	BTEX A1

Client: Navajo Refining Company
Project: SA Artesia Refinery - NCL
Work Order: HS14040954

SAMPLE TRACKING

HS14040954-35	EB-13-0414	Login	22-Apr-14 03:51	DRC	TPH C2
HS14040954-36	EB-13-0414-D	Login	22-Apr-14 03:51	DRC	17F
HS14040954-37	TB-032814-05	Login	22-Apr-14 03:51	DRC	VW-3
HS14040954-38	TB 032814-06	Login	24-Apr-14 09:20	DRC	VW-3

Sample Receipt Checklist

Client Name: Navajo Refining
Work Order: HS14040954

Date/Time Received: **22-Apr-2014 08:50**
Received by: **ECD**

Checklist completed by: Dana.Capps 22-Apr-2014
eSignature Date

Reviewed by: Alex Csaszar 24-Apr-2014
eSignature Date

Matrices: **Water**Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	0.3/0.3 0.6/0.6 0.4/0.4 0.5/0.5 0.3/0.3 3.4/3.4 C/U IR1		
Cooler(s)/Kit(s):	2781 5984 5644 6113 6009 5613		
Date/Time sample(s) sent to storage:	04/22/2014		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: 0 Regarding:

Comments:

Corrective Action:



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COC ID: 9337

ALS Project Manager:

HS14040954

Navajo Refining Company
SA Artesia Refinery Semi NCL

Weston, WV
3168

5280

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Customer Information				Project Information			
Purchase Order	439001 173648 NCL	Project Name	SA- Artesia Refinery-Semi NCL	VOC (8260) Select			
Work Order		Project Number		B GRO (8015M)			
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C DRO (8015M)			
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	D Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se			
Address	PO Box 159	Address	PO Box 159	E Total Metals (6020/7470) Hg, Ni, V			
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	F Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS			
Phone	(575) 748-6733	Phone	(575) 748-6733	G Cyanide (9014)			
Fax	(575) 748-5421	Fax	(575) 748-5421	H Nitrate/Nitrite as N (preserved)			
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	I Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se			
				J Dis. Metals (6020/7470) Hg, Ni, V			

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	NCL-31-0414	04/17/14	0915	H2O	2,3,8	6			X	X		X		X			
2	NCL-31-0414-D	04/17/14	0915	H2O	2,8	1									X		
3	WW-108-0414	04/17/14	0950	H2O	2,3,8	6			X	X		X		X			
4	WW-108-0414-D	04/17/14	0950	H2O	2,8	1									X		
5	NCL-44-0414	04/17/14	1045	H2O	2,3,8	6			X	X		X		X			
6	NCL-44-0414-D	04/17/14	1045	H2O	2,8	1									X		
7	NCL-33-0414	04/17/14	1125	H2O	2,3,8	6			X	X		X		X			
8	NCL-33-0414-D	04/17/14	1125	H2O	2,8	1									X		
9																	
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Sosa, Amy Sosa, Amy		Fed X		☒ Std 10 WK Days ☐ 5 WK Days ☐ Other			
Relinquished by:	Date: 04/18/14	Time: 1500	Received by:	Date: 4/18/14	Time: 929	Notes: 10 Work Days TAT. CC Pam Knueger/Arcadis	
Relinquished by:	Date: 04/17/14	Time: 1700	Received by:	Date: 4/17/14	Time: 929	Notes: 4/18/14	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	Date:	Time:	QC Package: (Check One Box Below)	
						☒ Level II Std QC ☐ TRRP Checklist	
						☐ Level III Std QC/Raw Data ☐ TRRP Level IV	
						☐ Level IV SW846/CLP	
						☐ Other / EDD	

Preservative Key:	1-HCl	2-HNO3	3-H2SO4	4-NaOH	5-Na2S2O3	6-NaHSO4	7-Other	8-4°C	9-5035

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Customer Information		Project Information		Parameter/Method Request for Analysis											
Purchase Order	173648 NCL	Project Name	SA- Artesia Refinery-Steamer NCL	VOC (8260) Select											
Work Order		Project Number		GRO (8015M)											
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	DRO (8015M)											
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se											
Address	PO Box 159	Address	PO Box 159	Total Metals (6020/7470) Hg, Ni, V											
				Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS											
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	Cyanide (9014)											
Phone	(575) 748-6733	Phone	(575) 748-6733	Nitrate/Nitrite as N (preserved)											
Fax	(575) 746-5421	Fax	(575) 746-5421	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se											
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	Dis. Metals (6020/7470) Hg, Ni, V											

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	mw-18-0414	04/17/14	1205	HW	2,3,4,8	7			X	X	X	X	X	X			
2	mw-18-0414-D	04/17/14	1205	HW	2,8	1									X	X	
3	mw-55-0414	04/17/14	1245	HW	2,3,4,8	7			X	X	X	X	X	X			
4	mw-55-0414-D	04/17/14	1245	HW	2,8	1									X	X	
5	Dup-8-0414	04/17/14		HW	2,3,4,8	7			X	X	X	X	X	X			
6	Dup-8-0414-A	04/17/14		HW	2,8	1									X	X	
7	mw-56-0414	04/17/14	1315	HW	2,3,8	6			X	X		X		X			
8	mw-56-0414-D	04/17/14	1315	HW	2,8	1									X		
9																	
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Sosa Jerry Son		FED X		☒ Std 10 WK Days ☐ 5 WK Days ☐ Other			
Relinquished by:		Date:	Time:	Received by:		Notes:	
Sosa Jerry		04/18/14	1500	Mural Shaw		10 Work Days TAT. CC Pam Krueger/Arcadis	
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID	
Mural Shaw		4/18/14	1500	Mural Shaw		4585	
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		Cooler Temp.	
Mural Shaw		4/22/14	8:50	Mural Shaw		A.	
QC Package: (Check One Box Below) ☒ Level II Std QC ☐ TRRP CheckList ☐ Level III Std QC/Raw Data ☐ TRRP Level IV ☐ Level IV SW/846/CLP ☐ Other / EDD							
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035							

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South Charleston, WV
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Customer Information		Project Information		ALS Project Manager:		ALS Work Order #:	
Purchase Order	139004 173648 NCL	Project Name	SA- Artesia Refinery-Site-wide CW NCL			VOC (8260) Select	
Work Order		Project Number				B GRO (8015M)	
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company			C DRO (8015M)	
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez			D Total Metals (8020) As, Ba, Cr, Fe, Pb, Mn, Se	
Address	PO Box 159	Address	PO Box 159			E Total Metals (8020/7470) Hg, Ni, V	
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211			F Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS	
Phone	(575) 748-3733	Phone	(575) 748-3733			G Cyanide (9014)	
Fax	(575) 746-5421	Fax	(575) 746-5421			H Nitrate/Nitrite as N (preserved)	
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com			I Dis. Metals (8020) As, Ba, Cr, Fe, Pb, Mn, Se	
						J Dis. Metals (8020/7470) Hg, Ni, V	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WWS-45-0414	04/17/14	1400	HW	23.8	7			X	X	X	X	X	X			
2	WWS-45-0414-D	04/17/14	1400	HW	2.8	1									X	X	
3	NCL-49-0414	04/17/14	1505	HW	23.8	6			X	X		X		X			
4	NCL-49-0414-D	04/17/14	1505	HW	2.8	1									X		
5	WWS-54A-0414	04/17/14	1440	HW	23.8	6			X	X		X		X			
6	WWS-54A-0414-D	04/17/14	1440	HW	2.8	1									X		
7	EB-12-0414	04/17/14	1600	HW	23.8	7			X	X	X	X	X	X			
8	EB-12-0414-D	04/17/14	1600	HW	2.8	1									X	X	
9																	
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Jose, Jerry Son Jerry		Fed X		☒ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour			
Relinquished by:		Date:	Time:	Received by:		Notes:	
Jose, Jerry		04/13/14	1500	Maurice Edward		10 Work Days TAT. CC Pam Krueger/Arcadis	
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID	
Maurice		4/20/14	1700	Maurice Edward		4584	
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		Cooler Temp.	
Maurice		4.22.14	8:50	Maurice		4	
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035							
QC Package: (Check One Box Below) ☒ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SW846/CLP ☐ Other / EDD							

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Customer Information		Project Information		ALS Project Manager: ALS Work Order #:																
Parameter/Method Request for Analysis																				
Purchase Order	138604 SW/GW	Project Name	SA- Artesia Refinery-Sitewide GW	A	VOC (8260) Select															
Work Order		Project Number		B	GRO (8015M)															
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	DRO (8015M)															
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se															
Address	PO Box 159	Address	PO Box 159	E	Total Metals (6020/7470) Hg, Ni, V															
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	F	Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS															
Phone	(575) 748-6733	Phone	(575) 748-6733	G	Cyanide (9014)															
Fax	(575) 746-5421	Fax	(575) 746-5421	H	Nitrate/Nitrite as N (preserved)															
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se															
				J	Dis. Metals (6020/7470) Hg, Ni, V															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold			
1	UG-3R-0414	04/18/14	0815	ltw	2348	7			X	X	X	X	X	X						
2	UG-3R-0414-D	04/18/14	0815	ltw	28	1									X	X				
3	Dup-9-0414	04/18/14		ltw	2348	7			X	X	X	X	X	X						
4	Dup-9-0414-D	04/18/14		ltw	28	1									X	X				
5	UG-1-0414	04/18/14	0900	ltw	2348	7			X	X	X	X	X	X						
6	UG-1-0414-D	04/18/14	0900	ltw	28	1									X	X				
7	UG-2-0414	04/18/14		ltw	2348	7			X	X	X	X	X	X						
8	UG-2-0414-D	04/18/14		ltw	28	1									X	X				
9																				
10																				
Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:														
Sosa, Jerry Sosa		Fed X		☒ Std 10 Wk Days ☐ 5 Wk Days ☐ Other ☐ 2 Wk Days ☐ 24 Hour																
Relinquished by:		Date:	Time:	Received by:		Notes:														
Sosa, Jerry		04/18/14	1500	Michael Sosa		10 Work Days TAT. CC Pam Krueger/Arcadis														
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID		Cooler Temp.		QC Package: (Check One Box Below)										
Michael Sosa		4/21/14	1700	Michael Sosa		4588		4		☒ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SWB45/CLP ☐ Other / EDD										
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):						☐ TRRP CheckList ☐ TRRP Level IV										
Edwards 422-14-8:50																				
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035																				

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Salt Lake City, UT
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South Charleston, WV
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Customer Information				Project Information				ALS Project Manager: ALS Work Order #:											
Parameter/Method Request for Analysis																			
Purchase Order	138604	173648 NCL	Project Name	SA- Artesia Refinery-Sitewide GW NCL	A	VOC (8260) Select													
Work Order			Project Number		B	GRO (8015M)													
Company Name	Navajo Refining Company		Bill To Company	Navajo Refining Company	C	DRO (8015M)													
Send Report To	Aaron Strange		Invoice Attn	Carrie Hernandez	D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se													
Address	PO Box 159		Address	PO Box 159	E	Total Metals (6020/7470) Hg, Ni, V													
City/State/Zip	Artesia, NM 88211		City/State/Zip	Artesia, NM 88211	F	Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS													
Phone	(575) 748-6733		Phone	(575) 748-6733	G	Cyanide (9014)													
Fax	(575) 746-5421		Fax	(575) 746-5421	H	Nitrate/Nitrite as N (preserved)													
e-Mail Address	robert.combs@navajo-refining.com		e-Mail Address	robert.combs@navajo-refining.com	I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se													
					J	Dis. Metals (6020/7470) Hg, Ni, V													

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	mw-53-0414	04/18/14	1030	HW	2,3,8	6			X	X		X		X			
2	mw-53-0414-D	04/18/14	1030	HW	2,8	1									X		
3	EB-13-0414	04/18/14	1100	HW	2,3,4,8	7			X	X	X	X	X	X			
4	EB-13-0414-D	04/18/14	1100	HW	2,8	1									X	X	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign				Ship Method		Required Turnaround Time: (Check Box)				Results Due Date:			
Sosa, Jerry Sosa, Jerry				FED X		☒ Std 10 Wk Days ☐ 5 Wk Days ☐ Other ☐ 2 Wk Days ☐ 24 Hour							
Relinquished by:		Date:		Time:		Received by:		Date:		Time:		Notes:	
Sosa, Jerry		04/18/14		7:50		Meredith Salazar		4/19/14		9:29		10 Work Days TAT. CC Pam Krueger/Arcadis	
Relinquished by:		Date:		Time:		Received by (Laboratory):		Date:		Time:		Cooler ID	
Meredith Salazar		4/21/14		17:00		Meredith Salazar		4/19/14		9:21		4888	
Logged by (Laboratory):		Date:		Time:		Checked by (Laboratory):		Date:		Time:		Cooler Temp.	
		4-22-14		8:50		Meredith Salazar						4°	
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035													
QC Package: (Check One Box Below) ☒ Level II Std QC ☐ TRRP CheckList ☐ Level III Std QC/Raw Data ☐ TRRP Level IV ☐ Level IV SW846/CLP ☐ Other / EDD													

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York, PA
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Customer Information		Project Information		ALS Project Manager:		ALS Work Order #:	
Purchase Order	438604 173648 NCL	Project Name	SA- Artesia Refinery-Sitewide SW NCL			Parameter/Method Request for Analysis	
Work Order		Project Number				A VOC (8260) Select	
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company			B GRO (8015M)	
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez			C DRO (8015M)	
Address	PO Box 159	Address	PO Box 159			D Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se	
						E Total Metals (6020/7470) Hg, Ni, V	
						F Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS	
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211			G Cyanide (9014)	
Phone	(575) 748-6733	Phone	(575) 748-6733			H Nitrate/Nitrite as N (preserved)	
Fax	(575) 746-5421	Fax	(575) 746-5421			I Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se	
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com			J Dis. Metals (6020/7470) Hg, Ni, V	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	NCL-31-0414	04/17/14	0915	HW	1,8	3	X										
2	mw-108-0414	04/17/14	0950	HW	1,8	3	X										
3	NCL-44-0414	04/17/14	1045	HW	1,8	3	X										
4	NCL-33-0414	04/17/14	1125	HW	1,8	3	X										
5	mw-18-0414	04/17/14	1205	HW	1,8	3	X										
6	mw-55-0414	04/17/14	1245	HW	1,8	6	X	X									
7	Dup-8-0414	04/17/14		HW	1,8	6	X	X									
8	mw-56-0414	04/17/14	1315	HW	1,8	3	X										
9	mw-45-0414	04/17/14	1400	HW	1,8	3	X										
10	NCL-49-0414	04/17/14	1505	HW	1,8	3	X										

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
SOS Jerry SOS Jerry		Fed X		☒ Std 10 WK Days ☐ 5 WK Days ☐ Other			
Relinquished by:		Date:	Time:	Received by:		Notes:	
SOS Jerry		04/18/14	1500			10 Work Days TAT. CC Pam Knieger/Arcadis	
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID	
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		QC Package: (Check One Box Below)	
		4/12/14	8:50	Lester E.		☒ Level II Std QC ☐ TRRP CheckList	
						☐ Level III Std QC/Raw Data ☐ TRRP Level IV	
						☐ Level IV SW846/CLP	
						☐ Other / EDD	
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO3 7-Other 8-4°C 9-5035							

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South Charleston, WV
+1 304 356 3168
York, PA
+1 717 505 5280

Customer Information			Project Information			Parameter/Method Request for Analysis												
Purchase Order	139604 173648 NCL		Project Name	SA- Artesia Refinery-Sitewide GW NCL		VOC (8260) Select												
Work Order			Project Number			B GRO (8015M)												
Company Name	Navajo Refining Company		Bill To Company	Navajo Refining Company		C DRO (8015M)												
Send Report To	Aaron Strange		Invoice Attn	Carrie Hernandez		D Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se												
Address	PO Box 159		Address	PO Box 159		E Total Metals (6020/7470) Hg, Ni, V												
						F Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS												
City/State/Zip	Artesia, NM 88211		City/State/Zip	Artesia, NM 88211		G Cyanide (9014)												
Phone	(575) 748-6733		Phone	(575) 748-6733		H Nitrate/Nitrite as N (preserved)												
Fax	(575) 746-5421		Fax	(575) 746-5421		I Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se												
e-Mail Address	robert.combs@navajo-refining.com		e-Mail Address	robert.combs@navajo-refining.com		J Dis. Metals (6020/7470) Hg, Ni, V												
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold	
1	mw-54A-0414	04/18/14	1440	H2O	1,8	3	X											
2	EB-12-0414	04/17/14	1600	H2O	1,8	6	X	X										
3	mw-53-0414	04/18/14	1030	H2O	1,8	3	X											
4	EB-13-0414	04/18/14	1100	H2O	1,8	6	X	X										
5																		
6																		
7																		
8																		
9																		
10																		
Sampler(s) Please Print & Sign SOS2, Jerry Sanjerg			Shipment Method FOUO		Required Turnaround Time: (Check Box) ☒ Std 10 WK Days ☐ 5 WK Days ☐ Other				Results Due Date:									
Relinquished by: SOS2, Jerry Sanjerg		Date: 04/18/14	Time: 1500	Received by:		Notes: 10 Work Days TAT. CC Pam Krueger/Arcadis												
Relinquished by:		Date: 4.22.14	Time: 0:50	Received by (Laboratory): Kutner		Cooler ID		Cooler Temp.		QC Package: (Check One Box Below)								
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):						☒ Level II Std QC ☐ TRRP CheckList ☐ Level III Std QC/Raw Data ☐ TRRP Level IV ☐ Level IV SWB45/CLP ☐ Other / EDD								
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O5 6-NaHSO4 7-Other 8-4°C 9-5035																		

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COC ID: 93373

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+1 304 356 3168
York, PA
+1 717 505 5280

Customer Information		Project Information		ALS Project Manager:																ALS Work Order #:
Purchase Order		Project Name		Parameter/Method Request for Analysis																
138604	SW/GW	SA- Artesia Refinery-Sitewide GW		A	VOC (8260) Select															
				B	GRO (8015M)															
Navajo Refining Company		Navajo Refining Company		C	DRO (8015M)															
Aaron Strange		Carrie Hernandez		D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se															
PO Box 159		PO Box 159		E	Total Metals (6020/7470) Hg, Ni, V															
				F	Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS															
Artesia, NM 88211		Artesia, NM 88211		G	Cyanide (9014)															
(575) 748-6733		(575) 748-6733		H	Nitrate/Nitrite as N (preserved)															
(575) 746-5421		(575) 746-5421		I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se															
robert.combs@navajo-refining.com		robert.combs@navajo-refining.com		J	Dis. Metals (6020/7470) Hg, Ni, V															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold			
1	UG-3R-0414	04/18/14	0815	ltw	1,8	6	X	X												
2	UG-1-0414	04/18/14	0900	ltw	1,8	6	X	X												
3	Dup-9-0414	04/18/14		ltw	1,8	6	X	X												
4	UG-2-0414	04/18/14	1000	ltw	1,8	6	X	X												
5	TB-032814-05	04/18/14	1000	ltw	1,8	2	X													
6																				
7																				
8																				
9																				
10																				
Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:												
Sosa, Jerry Sosa, Jerry		Fed X		☒ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour																
Relinquished by:		Date:	Time:	Received by:		Notes:														
Sosa, Jerry		04/18/14	1:50	Lustre		10 Work Days TAT. CC Pam Krueger/Arcadis														
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)												
Sosa, Jerry		4-22-14	8:50	Lustre				☒ Level II Std QC ☐ TRRP CheckList ☐ Level III Std QC/Raw Data ☐ TRRP Level IV ☐ Level IV SW/846/CLP ☐ Other / EDD												
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):																
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035																				

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TRKH 0201	7986 0104 5176	TUE - 22 APR 10:30A PRIORITY OVERNIGHT
TRKH 0201	5976 5060 9056	TUE - 22 APR 10:30A PRIORITY OVERNIGHT
TRKH 0201	5976 5060 9045	TUE - 22 APR 10:30A PRIORITY OVERNIGHT
TRKH 0201	5976 5060 9078	TUE - 22 APR 10:30A PRIORITY OVERNIGHT
TRKH 0201	5976 5060 9034	TUE - 22 APR 10:30A PRIORITY OVERNIGHT
TRKH 0201	5976 5060 9067	TUE - 22 APR 10:30A PRIORITY OVERNIGHT
XH SGRA		77099 TX-US IAH



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

September 04, 2014

Aaron Strange
Navajo Refining Company
PO Box 1490
Artesia, NM 88211-1490

Work Order: **HS14041068**

Revision: **3**

Laboratory Results for: **Artesia Refinery Semi-Annual**

Dear Aaron,

ALS Environmental received 49 sample(s) on Apr 24, 2014 for the analysis presented in the following report.

This is a REVISED REPORT. Please see the Case Narrative for discussion concerning this revision.

Regards,

A handwritten signature in cursive script that reads 'Bethany McDaniel'.

Generated By: Bethany.McDaniel
Bethany McDaniel
Project Manager

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Work Order: HS14041068

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS14041068-01	MW-50-0414	Water		21-Apr-2014 11:00	24-Apr-2014 09:15	☐
HS14041068-02	MW-50-0414-D	Water		21-Apr-2014 11:00	24-Apr-2014 09:15	☐
HS14041068-03	MW-91-0414	Water		21-Apr-2014 12:00	24-Apr-2014 09:15	☐
HS14041068-04	MW-91-0414-D	Water		21-Apr-2014 12:00	24-Apr-2014 09:15	☐
HS14041068-05	MW-90-0414	Water		21-Apr-2014 12:30	24-Apr-2014 09:15	☐
HS14041068-06	MW-90-0414-D	Water		21-Apr-2014 12:30	24-Apr-2014 09:15	☐
HS14041068-07	MW-96-0414	Water		21-Apr-2014 13:05	24-Apr-2014 09:15	☐
HS14041068-08	MW-96-0414-D	Water		21-Apr-2014 13:05	24-Apr-2014 09:15	☐
HS14041068-09	MW-95-0414	Water		21-Apr-2014 13:40	24-Apr-2014 09:15	☐
HS14041068-10	MW-95-0414-D	Water		21-Apr-2014 13:40	24-Apr-2014 09:15	☐
HS14041068-11	RW-17-0414	Water		21-Apr-2014 14:10	24-Apr-2014 09:15	☐
HS14041068-12	RW-17-0414-D	Water		21-Apr-2014 14:10	24-Apr-2014 09:15	☐
HS14041068-13	RW-16-0414	Water		21-Apr-2014 14:40	24-Apr-2014 09:15	☐
HS14041068-14	RW-16-0414-D	Water		21-Apr-2014 14:40	24-Apr-2014 09:15	☐
HS14041068-15	Dup-10-0414	Water		21-Apr-2014 00:00	24-Apr-2014 09:15	☐
HS14041068-16	Dup-10-0414-D	Water		21-Apr-2014 00:00	24-Apr-2014 09:15	☐
HS14041068-17	EB-14-0414	Water		21-Apr-2014 15:10	24-Apr-2014 09:15	☐
HS14041068-18	EB-14-0414-D	Water		21-Apr-2014 15:10	24-Apr-2014 09:15	☐
HS14041068-19	MW-93-0414	Water		22-Apr-2014 08:10	24-Apr-2014 09:15	☐
HS14041068-20	MW-93-0414-D	Water		22-Apr-2014 08:10	24-Apr-2014 09:15	☐
HS14041068-21	MW-43-0414	Water		22-Apr-2014 08:55	24-Apr-2014 09:15	☐
HS14041068-22	MW-43-0414-D	Water		22-Apr-2014 08:55	24-Apr-2014 09:15	☐
HS14041068-23	EB-15-0414	Water		22-Apr-2014 09:10	24-Apr-2014 09:15	☐
HS14041068-24	EB-15-0414-D	Water		22-Apr-2014 09:10	24-Apr-2014 09:15	☐
HS14041068-25	MW-23-0414	Water		22-Apr-2014 09:35	24-Apr-2014 09:15	☐
HS14041068-26	MW-23-0414-D	Water		22-Apr-2014 09:35	24-Apr-2014 09:15	☐
HS14041068-27	MW-62-0414	Water		22-Apr-2014 10:10	24-Apr-2014 09:15	☐

Revision:3

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Work Order: HS14041068

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS14041068-28	MW-62-0414-D	Water		22-Apr-2014 10:10	24-Apr-2014 09:15	☐
HS14041068-29	MW-106-0414	Water		22-Apr-2014 10:45	24-Apr-2014 09:15	☐
HS14041068-30	MW-106-0414-D	Water		22-Apr-2014 10:45	24-Apr-2014 09:15	☐
HS14041068-31	MW-98-0414	Water		22-Apr-2014 11:20	24-Apr-2014 09:15	☐
HS14041068-32	MW-98-0414-D	Water		22-Apr-2014 11:20	24-Apr-2014 09:15	☐
HS14041068-33	Dup-11-0414	Water		22-Apr-2014 00:00	24-Apr-2014 09:15	☐
HS14041068-34	Dup-11-0414-D	Water		22-Apr-2014 00:00	24-Apr-2014 09:15	☐
HS14041068-35	MW-59-0414	Water		22-Apr-2014 12:00	24-Apr-2014 09:15	☐
HS14041068-36	MW-59-0414-D	Water		22-Apr-2014 12:00	24-Apr-2014 09:15	☐
HS14041068-37	MW-60-0414	Water		22-Apr-2014 12:35	24-Apr-2014 09:15	☐
HS14041068-38	MW-60-0414-D	Water		22-Apr-2014 12:35	24-Apr-2014 09:15	☐
HS14041068-39	RW-10-0414	Water		22-Apr-2014 13:15	24-Apr-2014 09:15	☐
HS14041068-40	RW-10-0414-D	Water		22-Apr-2014 13:15	24-Apr-2014 09:15	☐
HS14041068-41	MW-40-0414	Water		22-Apr-2014 13:45	24-Apr-2014 09:15	☐
HS14041068-42	MW-40-0414-D	Water		22-Apr-2014 13:45	24-Apr-2014 09:15	☐
HS14041068-43	MW-41-0414	Water		22-Apr-2014 14:15	24-Apr-2014 09:15	☐
HS14041068-44	MW-41-0414-D	Water		22-Apr-2014 14:15	24-Apr-2014 09:15	☐
HS14041068-45	RW-9-0414	Water		22-Apr-2014 14:40	24-Apr-2014 09:15	☐
HS14041068-46	RW-9-0414-D	Water		22-Apr-2014 14:40	24-Apr-2014 09:15	☐
HS14041068-47	MW-42-0414	Water		22-Apr-2014 15:10	24-Apr-2014 09:15	☐
HS14041068-48	MW-42-0414-D	Water		22-Apr-2014 15:10	24-Apr-2014 09:15	☐
HS14041068-49	TB-032714-32	Water		23-Apr-2014 15:00	24-Apr-2014 09:15	☐

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Work Order: HS14041068

CASE NARRATIVE

This report was revised on September 3, 2014 to report to the MDL per client request

Report was revised July 25, 2014 to include Nickel and Vanadium analytes. Total and Dissolved Mercury were not analyzed due to laboratory error.

Report was revised July 22, 2014 per client request to remove Magnesium not requested.

Sample MW-62-0414 (HS14041068-27) was analyzed for Volatile Organics by method 8260. 1,2,4-Trimethylbenzene was reported at a 5 x dilution with an "E" value (over calibration range). The sample was reanalyzed at a 10 x dilution and this compound was diluted out.

Batch 813274, TPH (Diesel Range) by method 8015: Insufficient sample volume was received for MS/MSD.

Batch 813478, TPH (Diesel Range) by method 8015: Insufficient sample volume was received for MS/MSD.

Batch 81635, Metals by method 6020, Sample HS14040241-13:MS/MSD/PDS are for an unrelated sample.

Batch 81696, Metals by method 6020, Sample HS14050032-04: MS/MSD/PDS/SD are for an unrelated sample.

Batch 81698, Metals by method 6020, Sample HS14050093-04: MS/MSD/DUP/PDS/SD are for an unrelated sample.

Batch 81701, Metals by method 6020, Sample HS14041271-04: MS/MSD are for an unrelated sample.

Batch R233164, Volatile Organics by method 8260, Sample MW-98-0414 (HS14041068-31): MS/MSD recoveries for Methyl tert-butyl ether were outside of the control limits due to matrix interference.

Batch R233166, Volatile Organics by method 8260, Sample HS14041118-02: MS/MSD are for an unrelated sample.

Batch R233287, Chloride by method 300, Sample MW-42-0414 (HS14041068-47): MSD recovery was outside of the control limits due to matrix interference.

Batch R233295, Chloride and Sulfate by method 300, Sample MW-43-0414 (HS14041068-21): MS recoveries were outside of the control limits due to matrix interference.

Batch R233298, Cyanide by method SW9012, Sample MW-60-0414 (HS14041068-37): MS/MSD recoveries were outside of the control limits due to matrix interference.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-50-0414
 Collection Date: 21-Apr-2014 11:00

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:25
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:25
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:25
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 17:25
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:25
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:25
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 17:25
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:25
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	30-Apr-2014 17:25
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:25
2-Butanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 17:25
2-Hexanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 17:25
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:25
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 17:25
Acetone	U		0.0020	0.010	mg/L	1	30-Apr-2014 17:25
Benzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:25
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:25
Bromoform	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:25
Bromomethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:25
Carbon disulfide	U		0.00090	0.010	mg/L	1	30-Apr-2014 17:25
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:25
Chlorobenzene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 17:25
Chloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:25
Chloroform	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:25
Chloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:25
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:25
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:25
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:25
Ethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:25
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:25
m,p-Xylene	U		0.00060	0.010	mg/L	1	30-Apr-2014 17:25
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:25
Methylene chloride	U		0.0010	0.010	mg/L	1	30-Apr-2014 17:25
Naphthalene	U		0.00070	0.0050	mg/L	1	30-Apr-2014 17:25
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	30-Apr-2014 17:25
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:25
o-Xylene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:25
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:25
Styrene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:25
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:25
Toluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:25
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 17:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-50-0414
 Collection Date: 21-Apr-2014 11:00

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:25
Trichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:25
Vinyl chloride	U		0.00040	0.0020	mg/L	1	30-Apr-2014 17:25
Xylenes, Total	U		0.0015	0.015	mg/L	1	30-Apr-2014 17:25
Surr: 1,2-Dichloroethane-d4	107			70-125	%REC	1	30-Apr-2014 17:25
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	30-Apr-2014 17:25
Surr: Dibromofluoromethane	104			71-125	%REC	1	30-Apr-2014 17:25
Surr: Toluene-d8	98.0			75-125	%REC	1	30-Apr-2014 17:25
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014 Analyst: SKS			
Arsenic	U		0.00100	0.00500	mg/L	1	14-May-2014 18:42
Barium	0.0199		0.000900	0.00500	mg/L	1	14-May-2014 18:42
Calcium	410		0.670	5.00	mg/L	10	15-May-2014 15:11
Chromium	U		0.00100	0.00500	mg/L	1	14-May-2014 18:42
Iron	0.123	J	0.0500	0.200	mg/L	1	14-May-2014 18:42
Lead	0.00124	J	0.000700	0.00500	mg/L	1	14-May-2014 18:42
Manganese	1.32		0.00250	0.00500	mg/L	1	14-May-2014 18:42
Potassium	2.36		0.0500	0.200	mg/L	1	14-May-2014 18:42
Selenium	U		0.00100	0.00500	mg/L	1	14-May-2014 18:42
Sodium	130		0.0500	0.200	mg/L	1	14-May-2014 18:42
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	2,910		5.00	10.0	mg/L	1	28-Apr-2014 18:40
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	172		10.0	25.0	mg/L	50	03-May-2014 23:13
Fluoride	0.671		0.0500	0.100	mg/L	1	03-May-2014 18:51
Sulfate	1,300		10.0	25.0	mg/L	50	03-May-2014 23:13
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 28-Apr-2014 Analyst: RPM			
TPH (Diesel Range)	0.12		0.020	0.050	mg/L	1	29-Apr-2014 12:46
Surr: 2-Fluorobiphenyl	61.9			60-135	%REC	1	29-Apr-2014 12:46
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	12-May-2014 19:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-50-0414-D
Collection Date: 21-Apr-2014 11:00

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-02
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 06-May-2014		Analyst: ALR	
Arsenic	U		0.00100	0.00500	mg/L	1	15-May-2014 01:31
Barium	0.0202		0.000900	0.00500	mg/L	1	15-May-2014 01:31
Chromium	U		0.00100	0.00500	mg/L	1	15-May-2014 01:31
Iron	U		0.0780	0.200	mg/L	1	15-May-2014 01:31
Lead	0.000770	J	0.000700	0.00500	mg/L	1	15-May-2014 01:31
Manganese	1.38		0.00250	0.00500	mg/L	1	15-May-2014 01:31
Selenium	U		0.00100	0.00500	mg/L	1	15-May-2014 01:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-91-0414
 Collection Date: 21-Apr-2014 12:00

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-03
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.0025	0.025	mg/L	5	02-May-2014 21:25
1,1,2,2-Tetrachloroethane	U		0.0025	0.025	mg/L	5	02-May-2014 21:25
1,1,2-Trichloroethane	U		0.0025	0.025	mg/L	5	02-May-2014 21:25
1,1-Dichloroethane	U		0.0020	0.025	mg/L	5	02-May-2014 21:25
1,1-Dichloroethene	U		0.0025	0.025	mg/L	5	02-May-2014 21:25
1,2,4-Trimethylbenzene	0.22		0.0025	0.025	mg/L	5	02-May-2014 21:25
1,2-Dibromoethane	U		0.0020	0.025	mg/L	5	02-May-2014 21:25
1,2-Dichloroethane	U		0.0025	0.025	mg/L	5	02-May-2014 21:25
1,2-Dichloropropane	U		0.0035	0.025	mg/L	5	02-May-2014 21:25
1,3,5-Trimethylbenzene	0.064		0.0030	0.025	mg/L	5	02-May-2014 21:25
2-Butanone	U		0.0050	0.050	mg/L	5	02-May-2014 21:25
2-Hexanone	U		0.0050	0.050	mg/L	5	02-May-2014 21:25
4-Isopropyltoluene	0.0077	J	0.0025	0.025	mg/L	5	02-May-2014 21:25
4-Methyl-2-pentanone	U		0.0050	0.050	mg/L	5	02-May-2014 21:25
Acetone	0.027	J	0.010	0.050	mg/L	5	02-May-2014 21:25
Benzene	2.2		0.030	0.25	mg/L	50	02-May-2014 23:36
Bromodichloromethane	U		0.0030	0.025	mg/L	5	02-May-2014 21:25
Bromoform	U		0.0025	0.025	mg/L	5	02-May-2014 21:25
Bromomethane	U		0.0025	0.025	mg/L	5	02-May-2014 21:25
Carbon disulfide	0.0079	J	0.0045	0.050	mg/L	5	02-May-2014 21:25
Carbon tetrachloride	U		0.0030	0.025	mg/L	5	02-May-2014 21:25
Chlorobenzene	U		0.0020	0.025	mg/L	5	02-May-2014 21:25
Chloroethane	U		0.0025	0.025	mg/L	5	02-May-2014 21:25
Chloroform	U		0.0030	0.025	mg/L	5	02-May-2014 21:25
Chloromethane	U		0.0025	0.025	mg/L	5	02-May-2014 21:25
cis-1,2-Dichloroethene	U		0.0030	0.025	mg/L	5	02-May-2014 21:25
cis-1,3-Dichloropropene	U		0.0030	0.025	mg/L	5	02-May-2014 21:25
Dibromochloromethane	U		0.0025	0.025	mg/L	5	02-May-2014 21:25
Ethylbenzene	0.15		0.0025	0.025	mg/L	5	02-May-2014 21:25
Isopropylbenzene	0.10		0.0025	0.025	mg/L	5	02-May-2014 21:25
m,p-Xylene	0.54		0.0030	0.050	mg/L	5	02-May-2014 21:25
Methyl tert-butyl ether	U		0.0030	0.025	mg/L	5	02-May-2014 21:25
Methylene chloride	U		0.0050	0.050	mg/L	5	02-May-2014 21:25
Naphthalene	0.062		0.0035	0.025	mg/L	5	02-May-2014 21:25
n-Butylbenzene	0.014	J	0.0050	0.025	mg/L	5	02-May-2014 21:25
n-Propylbenzene	0.11		0.0025	0.025	mg/L	5	02-May-2014 21:25
o-Xylene	0.036		0.0025	0.025	mg/L	5	02-May-2014 21:25
sec-Butylbenzene	0.015	J	0.0030	0.025	mg/L	5	02-May-2014 21:25
Styrene	U		0.0025	0.025	mg/L	5	02-May-2014 21:25
Tetrachloroethene	U		0.0030	0.025	mg/L	5	02-May-2014 21:25
Toluene	0.41		0.0025	0.025	mg/L	5	02-May-2014 21:25
trans-1,2-Dichloroethene	U		0.0020	0.025	mg/L	5	02-May-2014 21:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-91-0414
 Collection Date: 21-Apr-2014 12:00

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-03
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
trans-1,3-Dichloropropene	U		0.0030	0.025	mg/L	5	02-May-2014 21:25
Trichloroethene	U		0.0025	0.025	mg/L	5	02-May-2014 21:25
Vinyl chloride	U		0.0020	0.010	mg/L	5	02-May-2014 21:25
Xylenes, Total	0.58		0.0075	0.075	mg/L	5	02-May-2014 21:25
Surr: 1,2-Dichloroethane-d4	106			70-125	%REC	5	02-May-2014 21:25
Surr: 1,2-Dichloroethane-d4	94.9			70-125	%REC	50	02-May-2014 23:36
Surr: 4-Bromofluorobenzene	103			72-125	%REC	5	02-May-2014 21:25
Surr: 4-Bromofluorobenzene	99.9			72-125	%REC	50	02-May-2014 23:36
Surr: Dibromofluoromethane	105			71-125	%REC	5	02-May-2014 21:25
Surr: Dibromofluoromethane	95.7			71-125	%REC	50	02-May-2014 23:36
Surr: Toluene-d8	97.0			75-125	%REC	5	02-May-2014 21:25
Surr: Toluene-d8	94.0			75-125	%REC	50	02-May-2014 23:36
ICP-MS METALS BY SW6020A			Method:SW6020			Prep:SW3010A / 07-May-2014 Analyst: SKS	
Arsenic	0.00394	J	0.00100	0.00500	mg/L	1	14-May-2014 18:45
Barium	0.130		0.000900	0.00500	mg/L	1	14-May-2014 18:45
Calcium	251		0.670	5.00	mg/L	10	15-May-2014 15:13
Chromium	U		0.00100	0.00500	mg/L	1	14-May-2014 18:45
Iron	0.117	J	0.0500	0.200	mg/L	1	14-May-2014 18:45
Lead	0.00191	J	0.000700	0.00500	mg/L	1	14-May-2014 18:45
Manganese	0.00450	J	0.00250	0.00500	mg/L	1	14-May-2014 18:45
Potassium	0.435		0.0500	0.200	mg/L	1	14-May-2014 18:45
Selenium	U		0.00100	0.00500	mg/L	1	14-May-2014 18:45
Sodium	38.8		0.0500	0.200	mg/L	1	14-May-2014 18:45
GASOLINE RANGE ORGANICS BY SW8015C			Method:SW8015			Analyst: DNR	
Gasoline Range Organics	11.9		0.0100	0.0500	mg/L	1	30-Apr-2014 17:22
Surr: 4-Bromofluorobenzene	125			70-130	%REC	1	30-Apr-2014 17:22
TOTAL DISSOLVED SOLIDS BY SM2540C			Method:M2540C			Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	1,540		5.00	10.0	mg/L	1	28-Apr-2014 18:40
ANIONS BY E300.0			Method:E300			Analyst: JKP	
Chloride	29.0		0.200	0.500	mg/L	1	03-May-2014 19:05
Fluoride	0.933		0.0500	0.100	mg/L	1	03-May-2014 19:05
Sulfate	240		10.0	25.0	mg/L	50	03-May-2014 23:27
TPH DRO/ORO BY SW8015C			Method:SW8015M			Prep:SW3511 / 28-Apr-2014 Analyst: RPM	
TPH (Diesel Range)	2.9		0.020	0.050	mg/L	1	29-Apr-2014 13:12
Surr: 2-Fluorobiphenyl	78.2			60-135	%REC	1	29-Apr-2014 13:12
NITRATE/NITRITE BY E300.0			Method:E300			Analyst: JKP	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	12-May-2014 19:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-91-0414-D
Collection Date: 21-Apr-2014 12:00

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-04
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 06-May-2014		Analyst: ALR	
Arsenic	0.00323	J	0.00100	0.00500	mg/L	1	15-May-2014 01:35
Barium	0.115		0.000900	0.00500	mg/L	1	15-May-2014 01:35
Chromium	U		0.00100	0.00500	mg/L	1	15-May-2014 01:35
Iron	U		0.0780	0.200	mg/L	1	15-May-2014 01:35
Lead	0.00144	J	0.000700	0.00500	mg/L	1	15-May-2014 01:35
Manganese	U		0.00250	0.00500	mg/L	1	15-May-2014 01:35
Selenium	U		0.00100	0.00500	mg/L	1	15-May-2014 01:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-90-0414
 Collection Date: 21-Apr-2014 12:30

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-05
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:49
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:49
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:49
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 17:49
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:49
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:49
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 17:49
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:49
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	30-Apr-2014 17:49
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:49
2-Butanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 17:49
2-Hexanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 17:49
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:49
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 17:49
Acetone	U		0.0020	0.010	mg/L	1	30-Apr-2014 17:49
Benzene	0.0035	J	0.00060	0.0050	mg/L	1	30-Apr-2014 17:49
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:49
Bromoform	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:49
Bromomethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:49
Carbon disulfide	U		0.00090	0.010	mg/L	1	30-Apr-2014 17:49
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:49
Chlorobenzene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 17:49
Chloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:49
Chloroform	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:49
Chloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:49
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:49
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:49
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:49
Ethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:49
Isopropylbenzene	0.027		0.00050	0.0050	mg/L	1	30-Apr-2014 17:49
m,p-Xylene	U		0.00060	0.010	mg/L	1	30-Apr-2014 17:49
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:49
Methylene chloride	U		0.0010	0.010	mg/L	1	30-Apr-2014 17:49
Naphthalene	0.0025	J	0.00070	0.0050	mg/L	1	30-Apr-2014 17:49
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	30-Apr-2014 17:49
n-Propylbenzene	0.0026	J	0.00050	0.0050	mg/L	1	30-Apr-2014 17:49
o-Xylene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:49
sec-Butylbenzene	0.0054		0.00060	0.0050	mg/L	1	30-Apr-2014 17:49
Styrene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:49
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:49
Toluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:49
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 17:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-90-0414
 Collection Date: 21-Apr-2014 12:30

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-05
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 17:49
Trichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 17:49
Vinyl chloride	U		0.00040	0.0020	mg/L	1	30-Apr-2014 17:49
Xylenes, Total	U		0.0015	0.015	mg/L	1	30-Apr-2014 17:49
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	1	30-Apr-2014 17:49
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	30-Apr-2014 17:49
Surr: Dibromofluoromethane	103			71-125	%REC	1	30-Apr-2014 17:49
Surr: Toluene-d8	98.7			75-125	%REC	1	30-Apr-2014 17:49
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014 Analyst: SKS			
Arsenic	0.00439	J	0.00100	0.00500	mg/L	1	14-May-2014 18:52
Barium	0.0183		0.000900	0.00500	mg/L	1	14-May-2014 18:52
Calcium	270		0.670	5.00	mg/L	10	15-May-2014 15:15
Chromium	U		0.00100	0.00500	mg/L	1	14-May-2014 18:52
Iron	0.0589	J	0.0500	0.200	mg/L	1	14-May-2014 18:52
Lead	0.000780	J	0.000700	0.00500	mg/L	1	14-May-2014 18:52
Manganese	0.0745		0.00250	0.00500	mg/L	1	14-May-2014 18:52
Potassium	0.928		0.0500	0.200	mg/L	1	14-May-2014 18:52
Selenium	U		0.00100	0.00500	mg/L	1	14-May-2014 18:52
Sodium	185		0.500	2.00	mg/L	10	15-May-2014 15:15
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	0.317		0.0100	0.0500	mg/L	1	30-Apr-2014 17:40
Surr: 4-Bromofluorobenzene	122			70-130	%REC	1	30-Apr-2014 17:40
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	2,600		5.00	10.0	mg/L	1	28-Apr-2014 18:40
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	162		10.0	25.0	mg/L	50	03-May-2014 23:42
Fluoride	0.892		0.0500	0.100	mg/L	1	03-May-2014 19:20
Sulfate	1,070		10.0	25.0	mg/L	50	03-May-2014 23:42
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 28-Apr-2014 Analyst: RPM			
TPH (Diesel Range)	1.4		0.020	0.050	mg/L	1	29-Apr-2014 13:39
Surr: 2-Fluorobiphenyl	60.1			60-135	%REC	1	29-Apr-2014 13:39
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	12-May-2014 19:48

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-90-0414-D
 Collection Date: 21-Apr-2014 12:30

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-06
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 06-May-2014		Analyst: ALR	
Arsenic	0.00379	J	0.00100	0.00500	mg/L	1	15-May-2014 02:50
Barium	0.0166		0.000900	0.00500	mg/L	1	15-May-2014 02:50
Chromium	U		0.00100	0.00500	mg/L	1	15-May-2014 02:50
Iron	U		0.0780	0.200	mg/L	1	15-May-2014 02:50
Lead	0.000729	J	0.000700	0.00500	mg/L	1	15-May-2014 02:50
Manganese	0.0754		0.00250	0.00500	mg/L	1	15-May-2014 02:50
Selenium	U		0.00100	0.00500	mg/L	1	15-May-2014 02:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-96-0414
 Collection Date: 21-Apr-2014 13:05

ANALYTICAL REPORT

WorkOrder: HS14041068
 Lab ID: HS14041068-07
 Matrix: Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method: SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.012	0.12	mg/L	25	02-May-2014 21:50
1,1,2,2-Tetrachloroethane	U		0.012	0.12	mg/L	25	02-May-2014 21:50
1,1,2-Trichloroethane	U		0.012	0.12	mg/L	25	02-May-2014 21:50
1,1-Dichloroethane	U		0.010	0.12	mg/L	25	02-May-2014 21:50
1,1-Dichloroethene	U		0.012	0.12	mg/L	25	02-May-2014 21:50
1,2,4-Trimethylbenzene	0.019	J	0.012	0.12	mg/L	25	02-May-2014 21:50
1,2-Dibromoethane	U		0.010	0.12	mg/L	25	02-May-2014 21:50
1,2-Dichloroethane	U		0.012	0.12	mg/L	25	02-May-2014 21:50
1,2-Dichloropropane	U		0.018	0.12	mg/L	25	02-May-2014 21:50
1,3,5-Trimethylbenzene	U		0.015	0.12	mg/L	25	02-May-2014 21:50
2-Butanone	U		0.025	0.25	mg/L	25	02-May-2014 21:50
2-Hexanone	U		0.025	0.25	mg/L	25	02-May-2014 21:50
4-Isopropyltoluene	U		0.012	0.12	mg/L	25	02-May-2014 21:50
4-Methyl-2-pentanone	U		0.025	0.25	mg/L	25	02-May-2014 21:50
Acetone	U		0.050	0.25	mg/L	25	02-May-2014 21:50
Benzene	0.056	J	0.015	0.12	mg/L	25	02-May-2014 21:50
Bromodichloromethane	U		0.015	0.12	mg/L	25	02-May-2014 21:50
Bromoform	U		0.012	0.12	mg/L	25	02-May-2014 21:50
Bromomethane	U		0.012	0.12	mg/L	25	02-May-2014 21:50
Carbon disulfide	U		0.022	0.25	mg/L	25	02-May-2014 21:50
Carbon tetrachloride	U		0.015	0.12	mg/L	25	02-May-2014 21:50
Chlorobenzene	U		0.010	0.12	mg/L	25	02-May-2014 21:50
Chloroethane	U		0.012	0.12	mg/L	25	02-May-2014 21:50
Chloroform	U		0.015	0.12	mg/L	25	02-May-2014 21:50
Chloromethane	U		0.012	0.12	mg/L	25	02-May-2014 21:50
cis-1,2-Dichloroethene	U		0.015	0.12	mg/L	25	02-May-2014 21:50
cis-1,3-Dichloropropene	U		0.015	0.12	mg/L	25	02-May-2014 21:50
Dibromochloromethane	U		0.012	0.12	mg/L	25	02-May-2014 21:50
Ethylbenzene	U		0.012	0.12	mg/L	25	02-May-2014 21:50
Isopropylbenzene	0.076	J	0.012	0.12	mg/L	25	02-May-2014 21:50
m,p-Xylene	0.037	J	0.015	0.25	mg/L	25	02-May-2014 21:50
Methyl tert-butyl ether	35		0.15	1.2	mg/L	250	02-May-2014 23:10
Methylene chloride	U		0.025	0.25	mg/L	25	02-May-2014 21:50
Naphthalene	0.065	J	0.018	0.12	mg/L	25	02-May-2014 21:50
n-Butylbenzene	U		0.025	0.12	mg/L	25	02-May-2014 21:50
n-Propylbenzene	0.070	J	0.012	0.12	mg/L	25	02-May-2014 21:50
o-Xylene	U		0.012	0.12	mg/L	25	02-May-2014 21:50
sec-Butylbenzene	U		0.015	0.12	mg/L	25	02-May-2014 21:50
Styrene	U		0.012	0.12	mg/L	25	02-May-2014 21:50
Tetrachloroethene	U		0.015	0.12	mg/L	25	02-May-2014 21:50
Toluene	0.015	J	0.012	0.12	mg/L	25	02-May-2014 21:50
trans-1,2-Dichloroethene	U		0.010	0.12	mg/L	25	02-May-2014 21:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-96-0414
 Collection Date: 21-Apr-2014 13:05

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-07
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
trans-1,3-Dichloropropene	U		0.015	0.12	mg/L	25	02-May-2014 21:50
Trichloroethene	U		0.012	0.12	mg/L	25	02-May-2014 21:50
Vinyl chloride	U		0.010	0.050	mg/L	25	02-May-2014 21:50
Xylenes, Total	U		0.038	0.38	mg/L	25	02-May-2014 21:50
Surr: 1,2-Dichloroethane-d4	103			70-125	%REC	25	02-May-2014 21:50
Surr: 1,2-Dichloroethane-d4	102			70-125	%REC	250	02-May-2014 23:10
Surr: 4-Bromofluorobenzene	103			72-125	%REC	25	02-May-2014 21:50
Surr: 4-Bromofluorobenzene	101			72-125	%REC	250	02-May-2014 23:10
Surr: Dibromofluoromethane	105			71-125	%REC	25	02-May-2014 21:50
Surr: Dibromofluoromethane	103			71-125	%REC	250	02-May-2014 23:10
Surr: Toluene-d8	97.6			75-125	%REC	25	02-May-2014 21:50
Surr: Toluene-d8	95.1			75-125	%REC	250	02-May-2014 23:10
ICP-MS METALS BY SW6020A			Method:SW6020			Prep:SW3010A / 07-May-2014 Analyst: SKS	
Arsenic	0.00469	J	0.00100	0.00500	mg/L	1	14-May-2014 18:55
Barium	0.109		0.000900	0.00500	mg/L	1	14-May-2014 18:55
Calcium	154		0.0670	0.500	mg/L	1	14-May-2014 18:55
Chromium	U		0.00100	0.00500	mg/L	1	14-May-2014 18:55
Iron	U		0.0500	0.200	mg/L	1	14-May-2014 18:55
Lead	U		0.000700	0.00500	mg/L	1	14-May-2014 18:55
Manganese	0.00250	J	0.00250	0.00500	mg/L	1	14-May-2014 18:55
Potassium	0.891		0.0500	0.200	mg/L	1	14-May-2014 18:55
Selenium	U		0.00100	0.00500	mg/L	1	14-May-2014 18:55
Sodium	234		0.500	2.00	mg/L	10	15-May-2014 15:18
GASOLINE RANGE ORGANICS BY SW8015C			Method:SW8015			Analyst: DNR	
Gasoline Range Organics	25.8		0.0100	0.0500	mg/L	1	30-Apr-2014 17:58
Surr: 4-Bromofluorobenzene	123			70-130	%REC	1	30-Apr-2014 17:58
TOTAL DISSOLVED SOLIDS BY SM2540C			Method:M2540C			Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	1,750		5.00	10.0	mg/L	1	28-Apr-2014 18:40
ANIONS BY E300.0			Method:E300			Analyst: JKP	
Chloride	146		10.0	25.0	mg/L	50	03-May-2014 23:56
Fluoride	0.606		0.0500	0.100	mg/L	1	03-May-2014 19:35
Sulfate	286		10.0	25.0	mg/L	50	03-May-2014 23:56
TPH DRO/ORO BY SW8015C			Method:SW8015M			Prep:SW3511 / 28-Apr-2014 Analyst: RPM	
TPH (Diesel Range)	2.2		0.020	0.050	mg/L	1	29-Apr-2014 14:59
Surr: 2-Fluorobiphenyl	74.8			60-135	%REC	1	29-Apr-2014 14:59
NITRATE/NITRITE BY E300.0			Method:E300			Analyst: JKP	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	12-May-2014 20:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-96-0414-D
Collection Date: 21-Apr-2014 13:05

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-08
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 06-May-2014		Analyst: ALR	
Arsenic	0.00477	J	0.00100	0.00500	mg/L	1	15-May-2014 02:54
Barium	0.114		0.000900	0.00500	mg/L	1	15-May-2014 02:54
Chromium	U		0.00100	0.00500	mg/L	1	15-May-2014 02:54
Iron	U		0.0780	0.200	mg/L	1	15-May-2014 02:54
Lead	U		0.000700	0.00500	mg/L	1	15-May-2014 02:54
Manganese	U		0.00250	0.00500	mg/L	1	15-May-2014 02:54
Selenium	U		0.00100	0.00500	mg/L	1	15-May-2014 02:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-95-0414
 Collection Date: 21-Apr-2014 13:40

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-09
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:14
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:14
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:14
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 18:14
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:14
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:14
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 18:14
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:14
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	30-Apr-2014 18:14
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:14
2-Butanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 18:14
2-Hexanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 18:14
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:14
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 18:14
Acetone	U		0.0020	0.010	mg/L	1	30-Apr-2014 18:14
Benzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:14
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:14
Bromoform	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:14
Bromomethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:14
Carbon disulfide	U		0.00090	0.010	mg/L	1	30-Apr-2014 18:14
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:14
Chlorobenzene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 18:14
Chloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:14
Chloroform	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:14
Chloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:14
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:14
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:14
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:14
Ethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:14
Isopropylbenzene	0.0058		0.00050	0.0050	mg/L	1	30-Apr-2014 18:14
m,p-Xylene	U		0.00060	0.010	mg/L	1	30-Apr-2014 18:14
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:14
Methylene chloride	U		0.0010	0.010	mg/L	1	30-Apr-2014 18:14
Naphthalene	U		0.00070	0.0050	mg/L	1	30-Apr-2014 18:14
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	30-Apr-2014 18:14
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:14
o-Xylene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:14
sec-Butylbenzene	0.0026	J	0.00060	0.0050	mg/L	1	30-Apr-2014 18:14
Styrene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:14
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:14
Toluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:14
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 18:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-95-0414
 Collection Date: 21-Apr-2014 13:40

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-09
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:14
Trichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:14
Vinyl chloride	U		0.00040	0.0020	mg/L	1	30-Apr-2014 18:14
Xylenes, Total	U		0.0015	0.015	mg/L	1	30-Apr-2014 18:14
Surr: 1,2-Dichloroethane-d4	103			70-125	%REC	1	30-Apr-2014 18:14
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	30-Apr-2014 18:14
Surr: Dibromofluoromethane	105			71-125	%REC	1	30-Apr-2014 18:14
Surr: Toluene-d8	98.1			75-125	%REC	1	30-Apr-2014 18:14
ICP-MS METALS BY SW6020A		Method:SW6020				Prep:SW3010A / 07-May-2014 Analyst: SKS	
Arsenic	U		0.00100	0.00500	mg/L	1	14-May-2014 18:58
Barium	0.126		0.000900	0.00500	mg/L	1	14-May-2014 18:58
Calcium	177		0.0670	0.500	mg/L	1	14-May-2014 18:58
Chromium	U		0.00100	0.00500	mg/L	1	14-May-2014 18:58
Iron	0.0549	J	0.0500	0.200	mg/L	1	14-May-2014 18:58
Lead	U		0.000700	0.00500	mg/L	1	14-May-2014 18:58
Manganese	0.0419		0.00250	0.00500	mg/L	1	14-May-2014 18:58
Potassium	0.494		0.0500	0.200	mg/L	1	14-May-2014 18:58
Selenium	U		0.00100	0.00500	mg/L	1	14-May-2014 18:58
Sodium	143		0.500	2.00	mg/L	10	15-May-2014 15:20
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: DNR	
Gasoline Range Organics	0.0926		0.0100	0.0500	mg/L	1	30-Apr-2014 18:16
Surr: 4-Bromofluorobenzene	121			70-130	%REC	1	30-Apr-2014 18:16
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	1,440		5.00	10.0	mg/L	1	28-Apr-2014 18:40
ANIONS BY E300.0		Method:E300				Analyst: JKP	
Chloride	226		10.0	25.0	mg/L	50	04-May-2014 00:11
Fluoride	0.560		0.0500	0.100	mg/L	1	03-May-2014 19:49
Sulfate	160		10.0	25.0	mg/L	50	04-May-2014 00:11
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3511 / 28-Apr-2014 Analyst: RPM	
TPH (Diesel Range)	1.1		0.020	0.050	mg/L	1	29-Apr-2014 15:26
Surr: 2-Fluorobiphenyl	64.9			60-135	%REC	1	29-Apr-2014 15:26
NITRATE/NITRITE BY E300.0		Method:E300				Analyst: JKP	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	12-May-2014 20:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-95-0414-D
Collection Date: 21-Apr-2014 13:40

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-10
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 06-May-2014		Analyst: ALR	
Arsenic	U		0.00100	0.00500	mg/L	1	15-May-2014 02:59
Barium	0.118		0.000900	0.00500	mg/L	1	15-May-2014 02:59
Chromium	U		0.00100	0.00500	mg/L	1	15-May-2014 02:59
Iron	U		0.0780	0.200	mg/L	1	15-May-2014 02:59
Lead	U		0.000700	0.00500	mg/L	1	15-May-2014 02:59
Manganese	0.0413		0.00250	0.00500	mg/L	1	15-May-2014 02:59
Selenium	U		0.00100	0.00500	mg/L	1	15-May-2014 02:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: RW-17-0414
 Collection Date: 21-Apr-2014 14:10

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-11
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:38
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:38
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:38
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 18:38
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:38
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:38
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 18:38
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:38
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	30-Apr-2014 18:38
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:38
2-Butanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 18:38
2-Hexanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 18:38
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:38
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 18:38
Acetone	U		0.0020	0.010	mg/L	1	30-Apr-2014 18:38
Benzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:38
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:38
Bromoform	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:38
Bromomethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:38
Carbon disulfide	U		0.00090	0.010	mg/L	1	30-Apr-2014 18:38
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:38
Chlorobenzene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 18:38
Chloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:38
Chloroform	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:38
Chloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:38
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:38
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:38
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:38
Ethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:38
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:38
m,p-Xylene	U		0.00060	0.010	mg/L	1	30-Apr-2014 18:38
Methyl tert-butyl ether	0.0031	J	0.00060	0.0050	mg/L	1	30-Apr-2014 18:38
Methylene chloride	U		0.0010	0.010	mg/L	1	30-Apr-2014 18:38
Naphthalene	U		0.00070	0.0050	mg/L	1	30-Apr-2014 18:38
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	30-Apr-2014 18:38
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:38
o-Xylene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:38
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:38
Styrene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:38
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:38
Toluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:38
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 18:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: RW-17-0414
 Collection Date: 21-Apr-2014 14:10

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-11
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 18:38
Trichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 18:38
Vinyl chloride	U		0.00040	0.0020	mg/L	1	30-Apr-2014 18:38
Xylenes, Total	U		0.0015	0.015	mg/L	1	30-Apr-2014 18:38
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	30-Apr-2014 18:38
Surr: 4-Bromofluorobenzene	100			72-125	%REC	1	30-Apr-2014 18:38
Surr: Dibromofluoromethane	105			71-125	%REC	1	30-Apr-2014 18:38
Surr: Toluene-d8	95.8			75-125	%REC	1	30-Apr-2014 18:38
ICP-MS METALS BY SW6020A		Method:SW6020				Prep:SW3010A / 07-May-2014 Analyst: SKS	
Arsenic	0.00888		0.00100	0.00500	mg/L	1	14-May-2014 19:00
Barium	0.0228		0.000900	0.00500	mg/L	1	14-May-2014 19:00
Calcium	585		0.670	5.00	mg/L	10	15-May-2014 15:23
Chromium	U		0.00100	0.00500	mg/L	1	14-May-2014 19:00
Iron	0.471		0.0500	0.200	mg/L	1	14-May-2014 19:00
Lead	0.0190		0.000700	0.00500	mg/L	1	14-May-2014 19:00
Manganese	0.675		0.00250	0.00500	mg/L	1	14-May-2014 19:00
Potassium	3.88		0.0500	0.200	mg/L	1	14-May-2014 19:00
Selenium	0.00156	J	0.00100	0.00500	mg/L	1	14-May-2014 19:00
Sodium	405		0.500	2.00	mg/L	10	15-May-2014 15:23
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: DNR	
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	30-Apr-2014 18:35
Surr: 4-Bromofluorobenzene	97.5			70-130	%REC	1	30-Apr-2014 18:35
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	6,100		5.00	10.0	mg/L	1	28-Apr-2014 18:40
ANIONS BY E300.0		Method:E300				Analyst: JKP	
Chloride	524		10.0	25.0	mg/L	50	04-May-2014 00:25
Fluoride	1.84		0.0500	0.100	mg/L	1	03-May-2014 20:04
Sulfate	3,280		10.0	25.0	mg/L	50	04-May-2014 00:25
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3511 / 28-Apr-2014 Analyst: RPM	
TPH (Diesel Range)	0.11		0.020	0.050	mg/L	1	29-Apr-2014 15:52
Surr: 2-Fluorobiphenyl	62.2			60-135	%REC	1	29-Apr-2014 15:52
NITRATE/NITRITE BY E300.0		Method:E300				Analyst: JKP	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	12-May-2014 20:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: RW-17-0414-D
Collection Date: 21-Apr-2014 14:10

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-12
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 06-May-2014		Analyst: ALR	
Arsenic	0.0104		0.00200	0.0100	mg/L	2	13-May-2014 22:09
Barium	0.0219		0.00180	0.0100	mg/L	2	13-May-2014 22:09
Chromium	U		0.00200	0.0100	mg/L	2	13-May-2014 22:09
Iron	0.540		0.156	0.400	mg/L	2	13-May-2014 22:09
Lead	0.00417	J	0.00140	0.0100	mg/L	2	13-May-2014 22:09
Manganese	0.743		0.00500	0.0100	mg/L	2	13-May-2014 22:09
Selenium	U		0.00200	0.0100	mg/L	2	13-May-2014 22:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: RW-16-0414
 Collection Date: 21-Apr-2014 14:40

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-13
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:02
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:02
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:02
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 19:02
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:02
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:02
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 19:02
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:02
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	30-Apr-2014 19:02
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:02
2-Butanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 19:02
2-Hexanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 19:02
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:02
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 19:02
Acetone	U		0.0020	0.010	mg/L	1	30-Apr-2014 19:02
Benzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:02
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:02
Bromoform	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:02
Bromomethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:02
Carbon disulfide	U		0.00090	0.010	mg/L	1	30-Apr-2014 19:02
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:02
Chlorobenzene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 19:02
Chloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:02
Chloroform	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:02
Chloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:02
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:02
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:02
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:02
Ethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:02
Isopropylbenzene	0.00087	J	0.00050	0.0050	mg/L	1	30-Apr-2014 19:02
m,p-Xylene	U		0.00060	0.010	mg/L	1	30-Apr-2014 19:02
Methyl tert-butyl ether	0.013		0.00060	0.0050	mg/L	1	30-Apr-2014 19:02
Methylene chloride	U		0.0010	0.010	mg/L	1	30-Apr-2014 19:02
Naphthalene	U		0.00070	0.0050	mg/L	1	30-Apr-2014 19:02
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	30-Apr-2014 19:02
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:02
o-Xylene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:02
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:02
Styrene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:02
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:02
Toluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:02
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 19:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: RW-16-0414
 Collection Date: 21-Apr-2014 14:40

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-13
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:02
Trichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:02
Vinyl chloride	U		0.00040	0.0020	mg/L	1	30-Apr-2014 19:02
Xylenes, Total	U		0.0015	0.015	mg/L	1	30-Apr-2014 19:02
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	30-Apr-2014 19:02
Surr: 4-Bromofluorobenzene	99.3			72-125	%REC	1	30-Apr-2014 19:02
Surr: Dibromofluoromethane	102			71-125	%REC	1	30-Apr-2014 19:02
Surr: Toluene-d8	97.0			75-125	%REC	1	30-Apr-2014 19:02
ICP-MS METALS BY SW6020A		Method:SW6020				Prep:SW3010A / 07-May-2014 Analyst: SKS	
Arsenic	0.0127		0.00100	0.00500	mg/L	1	14-May-2014 19:03
Barium	0.0141		0.000900	0.00500	mg/L	1	14-May-2014 19:03
Calcium	531		0.670	5.00	mg/L	10	15-May-2014 15:25
Chromium	U		0.00100	0.00500	mg/L	1	14-May-2014 19:03
Iron	0.174	J	0.0500	0.200	mg/L	1	14-May-2014 19:03
Lead	0.000789	J	0.000700	0.00500	mg/L	1	14-May-2014 19:03
Manganese	0.576		0.00250	0.00500	mg/L	1	14-May-2014 19:03
Potassium	0.799		0.0500	0.200	mg/L	1	14-May-2014 19:03
Selenium	0.00272	J	0.00100	0.00500	mg/L	1	14-May-2014 19:03
Sodium	430		0.500	2.00	mg/L	10	15-May-2014 15:25
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	5,130		5.00	10.0	mg/L	1	28-Apr-2014 18:40
ANIONS BY E300.0		Method:E300				Analyst: JKP	
Chloride	452		10.0	25.0	mg/L	50	04-May-2014 00:40
Fluoride	3.74		0.0500	0.100	mg/L	1	03-May-2014 20:18
Sulfate	2,680		10.0	25.0	mg/L	50	04-May-2014 00:40
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3511 / 28-Apr-2014 Analyst: RPM	
TPH (Diesel Range)	0.11		0.020	0.050	mg/L	1	29-Apr-2014 16:19
Surr: 2-Fluorobiphenyl	78.0			60-135	%REC	1	29-Apr-2014 16:19
NITRATE/NITRITE BY E300.0		Method:E300				Analyst: JKP	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	12-May-2014 20:46

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: RW-16-0414-D
Collection Date: 21-Apr-2014 14:40

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-14
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 06-May-2014		Analyst: ALR	
Arsenic	0.0126		0.00100	0.00500	mg/L	1	15-May-2014 03:03
Barium	0.0139		0.000900	0.00500	mg/L	1	15-May-2014 03:03
Chromium	U		0.00100	0.00500	mg/L	1	15-May-2014 03:03
Iron	0.125	J	0.0780	0.200	mg/L	1	15-May-2014 03:03
Lead	U		0.000700	0.00500	mg/L	1	15-May-2014 03:03
Manganese	0.601		0.00250	0.00500	mg/L	1	15-May-2014 03:03
Selenium	0.00304	J	0.00100	0.00500	mg/L	1	15-May-2014 03:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: Dup-10-0414
 Collection Date: 21-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-15
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:26
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:26
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:26
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 19:26
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:26
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:26
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 19:26
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:26
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	30-Apr-2014 19:26
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:26
2-Butanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 19:26
2-Hexanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 19:26
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:26
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 19:26
Acetone	U		0.0020	0.010	mg/L	1	30-Apr-2014 19:26
Benzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:26
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:26
Bromoform	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:26
Bromomethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:26
Carbon disulfide	U		0.00090	0.010	mg/L	1	30-Apr-2014 19:26
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:26
Chlorobenzene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 19:26
Chloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:26
Chloroform	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:26
Chloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:26
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:26
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:26
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:26
Ethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:26
Isopropylbenzene	0.00084	J	0.00050	0.0050	mg/L	1	30-Apr-2014 19:26
m,p-Xylene	U		0.00060	0.010	mg/L	1	30-Apr-2014 19:26
Methyl tert-butyl ether	0.012		0.00060	0.0050	mg/L	1	30-Apr-2014 19:26
Methylene chloride	U		0.0010	0.010	mg/L	1	30-Apr-2014 19:26
Naphthalene	U		0.00070	0.0050	mg/L	1	30-Apr-2014 19:26
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	30-Apr-2014 19:26
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:26
o-Xylene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:26
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:26
Styrene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:26
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:26
Toluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:26
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 19:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: Dup-10-0414
 Collection Date: 21-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-15
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:26
Trichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:26
Vinyl chloride	U		0.00040	0.0020	mg/L	1	30-Apr-2014 19:26
Xylenes, Total	U		0.0015	0.015	mg/L	1	30-Apr-2014 19:26
Surr: 1,2-Dichloroethane-d4	103			70-125	%REC	1	30-Apr-2014 19:26
Surr: 4-Bromofluorobenzene	99.9			72-125	%REC	1	30-Apr-2014 19:26
Surr: Dibromofluoromethane	100			71-125	%REC	1	30-Apr-2014 19:26
Surr: Toluene-d8	96.0			75-125	%REC	1	30-Apr-2014 19:26
ICP-MS METALS BY SW6020A		Method:SW6020				Prep:SW3010A / 07-May-2014 Analyst: SKS	
Arsenic	0.0132		0.00100	0.00500	mg/L	1	14-May-2014 19:06
Barium	0.0147		0.000900	0.00500	mg/L	1	14-May-2014 19:06
Calcium	556		0.670	5.00	mg/L	10	15-May-2014 15:28
Chromium	U		0.00100	0.00500	mg/L	1	14-May-2014 19:06
Iron	0.184	J	0.0500	0.200	mg/L	1	14-May-2014 19:06
Lead	U		0.000700	0.00500	mg/L	1	14-May-2014 19:06
Manganese	0.596		0.00250	0.00500	mg/L	1	14-May-2014 19:06
Potassium	0.767		0.0500	0.200	mg/L	1	14-May-2014 19:06
Selenium	0.00278	J	0.00100	0.00500	mg/L	1	14-May-2014 19:06
Sodium	455		0.500	2.00	mg/L	10	15-May-2014 15:28
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	5,150		5.00	10.0	mg/L	1	28-Apr-2014 18:40
ANIONS BY E300.0		Method:E300				Analyst: JKP	
Chloride	429		10.0	25.0	mg/L	50	04-May-2014 00:55
Fluoride	3.89		0.0500	0.100	mg/L	1	03-May-2014 21:16
Sulfate	2,550		10.0	25.0	mg/L	50	04-May-2014 00:55
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3511 / 28-Apr-2014 Analyst: RPM	
TPH (Diesel Range)	0.23		0.020	0.050	mg/L	1	29-Apr-2014 16:46
Surr: 2-Fluorobiphenyl	66.9			60-135	%REC	1	29-Apr-2014 16:46
NITRATE/NITRITE BY E300.0		Method:E300				Analyst: JKP	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	12-May-2014 21:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: Dup-10-0414-D
Collection Date: 21-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-16
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 06-May-2014		Analyst: ALR	
Arsenic	0.0127		0.00100	0.00500	mg/L	1	15-May-2014 03:08
Barium	0.0141		0.000900	0.00500	mg/L	1	15-May-2014 03:08
Chromium	U		0.00100	0.00500	mg/L	1	15-May-2014 03:08
Iron	0.139	J	0.0780	0.200	mg/L	1	15-May-2014 03:08
Lead	U		0.000700	0.00500	mg/L	1	15-May-2014 03:08
Manganese	0.611		0.00250	0.00500	mg/L	1	15-May-2014 03:08
Selenium	0.00300	J	0.00100	0.00500	mg/L	1	15-May-2014 03:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: EB-14-0414
 Collection Date: 21-Apr-2014 15:10

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-17
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:50
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:50
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:50
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 19:50
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:50
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:50
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 19:50
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:50
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	30-Apr-2014 19:50
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:50
2-Butanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 19:50
2-Hexanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 19:50
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:50
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 19:50
Acetone	0.011		0.0020	0.010	mg/L	1	30-Apr-2014 19:50
Benzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:50
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:50
Bromoform	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:50
Bromomethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:50
Carbon disulfide	U		0.00090	0.010	mg/L	1	30-Apr-2014 19:50
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:50
Chlorobenzene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 19:50
Chloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:50
Chloroform	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:50
Chloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:50
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:50
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:50
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:50
Ethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:50
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:50
m,p-Xylene	U		0.00060	0.010	mg/L	1	30-Apr-2014 19:50
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:50
Methylene chloride	U		0.0010	0.010	mg/L	1	30-Apr-2014 19:50
Naphthalene	U		0.00070	0.0050	mg/L	1	30-Apr-2014 19:50
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	30-Apr-2014 19:50
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:50
o-Xylene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:50
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:50
Styrene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:50
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:50
Toluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:50
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 19:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: EB-14-0414
 Collection Date: 21-Apr-2014 15:10

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-17
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 19:50
Trichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 19:50
Vinyl chloride	U		0.00040	0.0020	mg/L	1	30-Apr-2014 19:50
Xylenes, Total	U		0.0015	0.015	mg/L	1	30-Apr-2014 19:50
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	30-Apr-2014 19:50
Surr: 4-Bromofluorobenzene	99.4			72-125	%REC	1	30-Apr-2014 19:50
Surr: Dibromofluoromethane	103			71-125	%REC	1	30-Apr-2014 19:50
Surr: Toluene-d8	97.1			75-125	%REC	1	30-Apr-2014 19:50
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014 Analyst: SKS			
Arsenic	U		0.00100	0.00500	mg/L	1	14-May-2014 19:09
Barium	U		0.000900	0.00500	mg/L	1	14-May-2014 19:09
Calcium	3.23		0.0670	0.500	mg/L	1	14-May-2014 19:09
Chromium	U		0.00100	0.00500	mg/L	1	14-May-2014 19:09
Iron	U		0.0500	0.200	mg/L	1	14-May-2014 19:09
Lead	U		0.000700	0.00500	mg/L	1	14-May-2014 19:09
Manganese	U		0.00250	0.00500	mg/L	1	14-May-2014 19:09
Nickel	U		0.00100	0.00500	mg/L	1	14-May-2014 19:09
Potassium	U		0.0500	0.200	mg/L	1	14-May-2014 19:09
Selenium	U		0.00100	0.00500	mg/L	1	14-May-2014 19:09
Sodium	0.213		0.0500	0.200	mg/L	1	15-May-2014 15:30
Vanadium	U		0.000900	0.00500	mg/L	1	14-May-2014 19:09
CYANIDE BY SW9012B		Method:SW9012		Prep:SW9010C Analyst: KKB			
Cyanide	U		0.00500	0.0200	mg/L	1	03-May-2014 09:57
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	30-Apr-2014 18:53
Surr: 4-Bromofluorobenzene	118			70-130	%REC	1	30-Apr-2014 18:53
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	14.0		5.00	10.0	mg/L	1	28-Apr-2014 18:40
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	0.499	J	0.200	0.500	mg/L	1	03-May-2014 21:31
Fluoride	U		0.0500	0.100	mg/L	1	03-May-2014 21:31
Sulfate	4.23		0.200	0.500	mg/L	1	03-May-2014 21:31
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 28-Apr-2014 Analyst: RPM			
TPH (Diesel Range)	U		0.020	0.050	mg/L	1	29-Apr-2014 17:13
Surr: 2-Fluorobiphenyl	62.2			60-135	%REC	1	29-Apr-2014 17:13
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	12-May-2014 21:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: EB-14-0414-D
Collection Date: 21-Apr-2014 15:10

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-18
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 06-May-2014		Analyst: SKS	
Arsenic	U		0.00100	0.00500	mg/L	1	21-May-2014 16:26
Barium	0.00140	J	0.000900	0.00500	mg/L	1	21-May-2014 16:26
Chromium	U		0.00100	0.00500	mg/L	1	21-May-2014 16:26
Iron	U		0.0780	0.200	mg/L	1	21-May-2014 16:26
Lead	U		0.000700	0.00500	mg/L	1	21-May-2014 16:26
Manganese	U		0.00250	0.00500	mg/L	1	21-May-2014 16:26
Nickel	U		0.00100	0.00500	mg/L	1	21-May-2014 16:26
Selenium	U		0.00100	0.00500	mg/L	1	21-May-2014 16:26
Vanadium	0.00112	J	0.000900	0.00500	mg/L	1	21-May-2014 16:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-93-0414
 Collection Date: 22-Apr-2014 08:10

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-19
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.0025	0.025	mg/L	5	02-May-2014 22:14
1,1,2,2-Tetrachloroethane	U		0.0025	0.025	mg/L	5	02-May-2014 22:14
1,1,2-Trichloroethane	U		0.0025	0.025	mg/L	5	02-May-2014 22:14
1,1-Dichloroethane	U		0.0020	0.025	mg/L	5	02-May-2014 22:14
1,1-Dichloroethene	U		0.0025	0.025	mg/L	5	02-May-2014 22:14
1,2,4-Trimethylbenzene	0.37		0.0025	0.025	mg/L	5	02-May-2014 22:14
1,2-Dibromoethane	U		0.0020	0.025	mg/L	5	02-May-2014 22:14
1,2-Dichloroethane	U		0.0025	0.025	mg/L	5	02-May-2014 22:14
1,2-Dichloropropane	U		0.0035	0.025	mg/L	5	02-May-2014 22:14
1,3,5-Trimethylbenzene	0.076		0.0030	0.025	mg/L	5	02-May-2014 22:14
2-Butanone	U		0.0050	0.050	mg/L	5	02-May-2014 22:14
2-Hexanone	U		0.0050	0.050	mg/L	5	02-May-2014 22:14
4-Isopropyltoluene	0.0085	J	0.0025	0.025	mg/L	5	02-May-2014 22:14
4-Methyl-2-pentanone	U		0.0050	0.050	mg/L	5	02-May-2014 22:14
Acetone	U		0.010	0.050	mg/L	5	02-May-2014 22:14
Benzene	1.8		0.015	0.12	mg/L	25	02-May-2014 22:45
Bromodichloromethane	U		0.0030	0.025	mg/L	5	02-May-2014 22:14
Bromoform	U		0.0025	0.025	mg/L	5	02-May-2014 22:14
Bromomethane	U		0.0025	0.025	mg/L	5	02-May-2014 22:14
Carbon disulfide	0.0059	J	0.0045	0.050	mg/L	5	02-May-2014 22:14
Carbon tetrachloride	U		0.0030	0.025	mg/L	5	02-May-2014 22:14
Chlorobenzene	U		0.0020	0.025	mg/L	5	02-May-2014 22:14
Chloroethane	U		0.0025	0.025	mg/L	5	02-May-2014 22:14
Chloroform	U		0.0030	0.025	mg/L	5	02-May-2014 22:14
Chloromethane	U		0.0025	0.025	mg/L	5	02-May-2014 22:14
cis-1,2-Dichloroethene	U		0.0030	0.025	mg/L	5	02-May-2014 22:14
cis-1,3-Dichloropropene	U		0.0030	0.025	mg/L	5	02-May-2014 22:14
Dibromochloromethane	U		0.0025	0.025	mg/L	5	02-May-2014 22:14
Ethylbenzene	0.067		0.0025	0.025	mg/L	5	02-May-2014 22:14
Isopropylbenzene	0.068		0.0025	0.025	mg/L	5	02-May-2014 22:14
m,p-Xylene	0.60		0.0030	0.050	mg/L	5	02-May-2014 22:14
Methyl tert-butyl ether	0.0059	J	0.0030	0.025	mg/L	5	02-May-2014 22:14
Methylene chloride	U		0.0050	0.050	mg/L	5	02-May-2014 22:14
Naphthalene	0.12		0.0035	0.025	mg/L	5	02-May-2014 22:14
n-Butylbenzene	0.024	J	0.0050	0.025	mg/L	5	02-May-2014 22:14
n-Propylbenzene	0.11		0.0025	0.025	mg/L	5	02-May-2014 22:14
o-Xylene	0.015	J	0.0025	0.025	mg/L	5	02-May-2014 22:14
sec-Butylbenzene	0.015	J	0.0030	0.025	mg/L	5	02-May-2014 22:14
Styrene	U		0.0025	0.025	mg/L	5	02-May-2014 22:14
Tetrachloroethene	U		0.0030	0.025	mg/L	5	02-May-2014 22:14
Toluene	0.019	J	0.0025	0.025	mg/L	5	02-May-2014 22:14
trans-1,2-Dichloroethene	U		0.0020	0.025	mg/L	5	02-May-2014 22:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-93-0414
 Collection Date: 22-Apr-2014 08:10

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-19
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
trans-1,3-Dichloropropene	U		0.0030	0.025	mg/L	5	02-May-2014 22:14
Trichloroethene	U		0.0025	0.025	mg/L	5	02-May-2014 22:14
Vinyl chloride	U		0.0020	0.010	mg/L	5	02-May-2014 22:14
Xylenes, Total	0.61		0.0075	0.075	mg/L	5	02-May-2014 22:14
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	5	02-May-2014 22:14
Surr: 1,2-Dichloroethane-d4	96.2			70-125	%REC	25	02-May-2014 22:45
Surr: 4-Bromofluorobenzene	103			72-125	%REC	5	02-May-2014 22:14
Surr: 4-Bromofluorobenzene	100			72-125	%REC	25	02-May-2014 22:45
Surr: Dibromofluoromethane	105			71-125	%REC	5	02-May-2014 22:14
Surr: Dibromofluoromethane	103			71-125	%REC	25	02-May-2014 22:45
Surr: Toluene-d8	97.0			75-125	%REC	5	02-May-2014 22:14
Surr: Toluene-d8	96.5			75-125	%REC	25	02-May-2014 22:45
ICP-MS METALS BY SW6020A			Method:SW6020			Prep:SW3010A / 07-May-2014 Analyst: SKS	
Arsenic	0.00671		0.00100	0.00500	mg/L	1	14-May-2014 19:11
Barium	0.0823		0.000900	0.00500	mg/L	1	14-May-2014 19:11
Calcium	414		0.670	5.00	mg/L	10	15-May-2014 15:37
Chromium	0.00329	J	0.00100	0.00500	mg/L	1	14-May-2014 19:11
Iron	0.163	J	0.0500	0.200	mg/L	1	14-May-2014 19:11
Lead	0.00288	J	0.000700	0.00500	mg/L	1	14-May-2014 19:11
Manganese	0.0471		0.00250	0.00500	mg/L	1	14-May-2014 19:11
Potassium	3.11		0.0500	0.200	mg/L	1	14-May-2014 19:11
Selenium	0.00282	J	0.00100	0.00500	mg/L	1	14-May-2014 19:11
Sodium	103		0.500	2.00	mg/L	10	15-May-2014 15:37
GASOLINE RANGE ORGANICS BY SW8015C			Method:SW8015			Analyst: DNR	
Gasoline Range Organics	9.90		0.0100	0.0500	mg/L	1	30-Apr-2014 21:21
Surr: 4-Bromofluorobenzene	123			70-130	%REC	1	30-Apr-2014 21:21
TOTAL DISSOLVED SOLIDS BY SM2540C			Method:M2540C			Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	2,130		5.00	10.0	mg/L	1	28-Apr-2014 18:40
ANIONS BY E300.0			Method:E300			Analyst: JKP	
Chloride	173		10.0	25.0	mg/L	50	04-May-2014 01:09
Fluoride	1.16		0.0500	0.100	mg/L	1	03-May-2014 21:45
Sulfate	645		10.0	25.0	mg/L	50	04-May-2014 01:09
TPH DRO/ORO BY SW8015C			Method:SW8015M			Prep:SW3511 / 28-Apr-2014 Analyst: RPM	
TPH (Diesel Range)	14		0.10	0.25	mg/L	5	30-Apr-2014 10:45
Surr: 2-Fluorobiphenyl	64.2			60-135	%REC	5	30-Apr-2014 10:45
NITRATE/NITRITE BY E300.0			Method:E300			Analyst: JKP	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	12-May-2014 21:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-93-0414-D
Collection Date: 22-Apr-2014 08:10

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-20
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 06-May-2014		Analyst: SKS	
Arsenic	0.00718		0.00100	0.00500	mg/L	1	21-May-2014 16:28
Barium	0.0850		0.000900	0.00500	mg/L	1	21-May-2014 16:28
Chromium	0.00207	J	0.00100	0.00500	mg/L	1	21-May-2014 16:28
Iron	U		0.0780	0.200	mg/L	1	21-May-2014 16:28
Lead	0.00113	J	0.000700	0.00500	mg/L	1	21-May-2014 16:28
Manganese	0.0408		0.00250	0.00500	mg/L	1	21-May-2014 16:28
Selenium	0.00186	J	0.00100	0.00500	mg/L	1	21-May-2014 16:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-43-0414
 Collection Date: 22-Apr-2014 08:55

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-21
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 19:49
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 19:49
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 19:49
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	02-May-2014 19:49
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	02-May-2014 19:49
1,2,4-Trimethylbenzene	0.029		0.00050	0.0050	mg/L	1	02-May-2014 19:49
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	02-May-2014 19:49
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 19:49
1,2-Dichloropropane	0.0032	J	0.00070	0.0050	mg/L	1	02-May-2014 19:49
1,3,5-Trimethylbenzene	0.0015	J	0.00060	0.0050	mg/L	1	02-May-2014 19:49
2-Butanone	U		0.0010	0.010	mg/L	1	02-May-2014 19:49
2-Hexanone	U		0.0010	0.010	mg/L	1	02-May-2014 19:49
4-Isopropyltoluene	0.0017	J	0.00050	0.0050	mg/L	1	02-May-2014 19:49
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	02-May-2014 19:49
Acetone	U		0.0020	0.010	mg/L	1	02-May-2014 19:49
Benzene	0.35		0.0060	0.050	mg/L	10	02-May-2014 19:10
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	02-May-2014 19:49
Bromoform	U		0.00050	0.0050	mg/L	1	02-May-2014 19:49
Bromomethane	U		0.00050	0.0050	mg/L	1	02-May-2014 19:49
Carbon disulfide	0.0010	J	0.00090	0.010	mg/L	1	02-May-2014 19:49
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	02-May-2014 19:49
Chlorobenzene	U		0.00040	0.0050	mg/L	1	02-May-2014 19:49
Chloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 19:49
Chloroform	U		0.00060	0.0050	mg/L	1	02-May-2014 19:49
Chloromethane	U		0.00050	0.0050	mg/L	1	02-May-2014 19:49
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	02-May-2014 19:49
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	02-May-2014 19:49
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	02-May-2014 19:49
Ethylbenzene	0.015		0.00050	0.0050	mg/L	1	02-May-2014 19:49
Isopropylbenzene	0.052		0.00050	0.0050	mg/L	1	02-May-2014 19:49
m,p-Xylene	0.14		0.00060	0.010	mg/L	1	02-May-2014 19:49
Methyl tert-butyl ether	0.014		0.00060	0.0050	mg/L	1	02-May-2014 19:49
Methylene chloride	U		0.0010	0.010	mg/L	1	02-May-2014 19:49
Naphthalene	0.0050		0.00070	0.0050	mg/L	1	02-May-2014 19:49
n-Butylbenzene	0.0077		0.0010	0.0050	mg/L	1	02-May-2014 19:49
n-Propylbenzene	0.054		0.00050	0.0050	mg/L	1	02-May-2014 19:49
o-Xylene	0.014		0.00050	0.0050	mg/L	1	02-May-2014 19:49
sec-Butylbenzene	0.0091		0.00060	0.0050	mg/L	1	02-May-2014 19:49
Styrene	U		0.00050	0.0050	mg/L	1	02-May-2014 19:49
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	02-May-2014 19:49
Toluene	0.029		0.00050	0.0050	mg/L	1	02-May-2014 19:49
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	02-May-2014 19:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-43-0414
 Collection Date: 22-Apr-2014 08:55

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-21
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	02-May-2014 19:49
Trichloroethene	U		0.00050	0.0050	mg/L	1	02-May-2014 19:49
Vinyl chloride	U		0.00040	0.0020	mg/L	1	02-May-2014 19:49
Xylenes, Total	0.16		0.0015	0.015	mg/L	1	02-May-2014 19:49
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	02-May-2014 19:49
Surr: 1,2-Dichloroethane-d4	95.2			70-125	%REC	10	02-May-2014 19:10
Surr: 4-Bromofluorobenzene	105			72-125	%REC	1	02-May-2014 19:49
Surr: 4-Bromofluorobenzene	104			72-125	%REC	10	02-May-2014 19:10
Surr: Dibromofluoromethane	104			71-125	%REC	1	02-May-2014 19:49
Surr: Dibromofluoromethane	96.1			71-125	%REC	10	02-May-2014 19:10
Surr: Toluene-d8	96.8			75-125	%REC	1	02-May-2014 19:49
Surr: Toluene-d8	103			75-125	%REC	10	02-May-2014 19:10
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014		Analyst: SKS	
Arsenic	0.0106		0.00100	0.00500	mg/L	1	14-May-2014 19:14
Barium	0.103		0.000900	0.00500	mg/L	1	14-May-2014 19:14
Calcium	205		0.670	5.00	mg/L	10	15-May-2014 15:40
Chromium	U		0.00100	0.00500	mg/L	1	14-May-2014 19:14
Iron	U		0.0500	0.200	mg/L	1	14-May-2014 19:14
Lead	U		0.000700	0.00500	mg/L	1	14-May-2014 19:14
Manganese	0.470		0.00250	0.00500	mg/L	1	14-May-2014 19:14
Nickel	0.00617		0.00100	0.00500	mg/L	1	14-May-2014 19:14
Potassium	0.596		0.0500	0.200	mg/L	1	14-May-2014 19:14
Selenium	0.00128	J	0.00100	0.00500	mg/L	1	14-May-2014 19:14
Sodium	531		0.500	2.00	mg/L	10	15-May-2014 15:40
Vanadium	U		0.000900	0.00500	mg/L	1	14-May-2014 19:14
CYANIDE BY SW9012B		Method:SW9012		Prep:SW9010C / 05-May-2014		Analyst: KKB	
Cyanide	U		0.0500	0.200	mg/L	10	06-May-2014 18:08
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	2.89		0.0100	0.0500	mg/L	1	30-Apr-2014 21:39
Surr: 4-Bromofluorobenzene	124			70-130	%REC	1	30-Apr-2014 21:39
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	2,650		5.00	10.0	mg/L	1	28-Apr-2014 18:40
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	886		10.0	25.0	mg/L	50	04-May-2014 01:24
Fluoride	0.250		0.0500	0.100	mg/L	1	03-May-2014 22:00
Sulfate	218		10.0	25.0	mg/L	50	04-May-2014 01:24
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 28-Apr-2014		Analyst: RPM	
TPH (Diesel Range)	1.2		0.020	0.050	mg/L	1	29-Apr-2014 18:07
Surr: 2-Fluorobiphenyl	65.7			60-135	%REC	1	29-Apr-2014 18:07

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-43-0414
Collection Date: 22-Apr-2014 08:55

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-21
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	12-May-2014 22:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-43-0414-D
 Collection Date: 22-Apr-2014 08:55

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-22
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 06-May-2014		Analyst: SKS	
Arsenic	0.0102		0.00100	0.00500	mg/L	1	21-May-2014 16:31
Barium	0.0931		0.000900	0.00500	mg/L	1	21-May-2014 16:31
Chromium	U		0.00100	0.00500	mg/L	1	21-May-2014 16:31
Iron	U		0.0780	0.200	mg/L	1	21-May-2014 16:31
Lead	U		0.000700	0.00500	mg/L	1	21-May-2014 16:31
Manganese	0.439		0.00250	0.00500	mg/L	1	21-May-2014 16:31
Nickel	0.00357	J	0.00100	0.00500	mg/L	1	21-May-2014 16:31
Selenium	U		0.00100	0.00500	mg/L	1	21-May-2014 16:31
Vanadium	0.00397	J	0.000900	0.00500	mg/L	1	21-May-2014 16:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: EB-15-0414
 Collection Date: 22-Apr-2014 09:10

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-23
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 20:14
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 20:14
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 20:14
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 20:14
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 20:14
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 20:14
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 20:14
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 20:14
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	30-Apr-2014 20:14
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 20:14
2-Butanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 20:14
2-Hexanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 20:14
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 20:14
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 20:14
Acetone	U		0.0020	0.010	mg/L	1	30-Apr-2014 20:14
Benzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 20:14
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	30-Apr-2014 20:14
Bromoform	U		0.00050	0.0050	mg/L	1	30-Apr-2014 20:14
Bromomethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 20:14
Carbon disulfide	U		0.00090	0.010	mg/L	1	30-Apr-2014 20:14
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	30-Apr-2014 20:14
Chlorobenzene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 20:14
Chloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 20:14
Chloroform	U		0.00060	0.0050	mg/L	1	30-Apr-2014 20:14
Chloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 20:14
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 20:14
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 20:14
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 20:14
Ethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 20:14
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 20:14
m,p-Xylene	U		0.00060	0.010	mg/L	1	30-Apr-2014 20:14
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	30-Apr-2014 20:14
Methylene chloride	U		0.0010	0.010	mg/L	1	30-Apr-2014 20:14
Naphthalene	U		0.00070	0.0050	mg/L	1	30-Apr-2014 20:14
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	30-Apr-2014 20:14
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 20:14
o-Xylene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 20:14
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 20:14
Styrene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 20:14
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 20:14
Toluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 20:14
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 20:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: EB-15-0414
 Collection Date: 22-Apr-2014 09:10

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-23
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 20:14
Trichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 20:14
Vinyl chloride	U		0.00040	0.0020	mg/L	1	30-Apr-2014 20:14
Xylenes, Total	U		0.0015	0.015	mg/L	1	30-Apr-2014 20:14
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	1	30-Apr-2014 20:14
Surr: 4-Bromofluorobenzene	98.5			72-125	%REC	1	30-Apr-2014 20:14
Surr: Dibromofluoromethane	101			71-125	%REC	1	30-Apr-2014 20:14
Surr: Toluene-d8	96.7			75-125	%REC	1	30-Apr-2014 20:14
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014 Analyst: ALR			
Arsenic	U		0.00100	0.00500	mg/L	1	26-May-2014 20:44
Barium	U		0.000900	0.00500	mg/L	1	26-May-2014 20:44
Calcium	U		0.0670	0.500	mg/L	1	26-May-2014 20:44
Chromium	U		0.00100	0.00500	mg/L	1	26-May-2014 20:44
Iron	U		0.0500	0.200	mg/L	1	26-May-2014 20:44
Lead	U		0.000700	0.00500	mg/L	1	26-May-2014 20:44
Manganese	U		0.00250	0.00500	mg/L	1	26-May-2014 20:44
Nickel	U		0.00100	0.00500	mg/L	1	26-May-2014 20:44
Potassium	U		0.0500	0.200	mg/L	1	26-May-2014 20:44
Selenium	U		0.00100	0.00500	mg/L	1	26-May-2014 20:44
Sodium	0.156	J	0.0500	0.200	mg/L	1	26-May-2014 20:44
Vanadium	U		0.000900	0.00500	mg/L	1	26-May-2014 20:44
CYANIDE BY SW9012B		Method:SW9012		Prep:SW9010C / 05-May-2014 Analyst: KKB			
Cyanide	U		0.00500	0.0200	mg/L	1	06-May-2014 18:08
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	30-Apr-2014 21:57
Surr: 4-Bromofluorobenzene	120			70-130	%REC	1	30-Apr-2014 21:57
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	26.0		5.00	10.0	mg/L	1	28-Apr-2014 18:40
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	U		0.200	0.500	mg/L	1	06-May-2014 04:23
Fluoride	U		0.0500	0.100	mg/L	1	06-May-2014 04:23
Sulfate	U		0.200	0.500	mg/L	1	06-May-2014 04:23
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 28-Apr-2014 Analyst: RPM			
TPH (Diesel Range)	U		0.020	0.050	mg/L	1	29-Apr-2014 18:33
Surr: 2-Fluorobiphenyl	60.6			60-135	%REC	1	29-Apr-2014 18:33
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	12-May-2014 22:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: EB-15-0414-D
Collection Date: 22-Apr-2014 09:10

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-24
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 06-May-2014		Analyst: SKS	
Arsenic	U		0.00100	0.00500	mg/L	1	21-May-2014 16:38
Barium	U		0.000900	0.00500	mg/L	1	21-May-2014 16:38
Chromium	U		0.00100	0.00500	mg/L	1	21-May-2014 16:38
Iron	U		0.0780	0.200	mg/L	1	21-May-2014 16:38
Lead	U		0.000700	0.00500	mg/L	1	21-May-2014 16:38
Manganese	U		0.00250	0.00500	mg/L	1	21-May-2014 16:38
Nickel	U		0.00100	0.00500	mg/L	1	21-May-2014 16:38
Selenium	U		0.00100	0.00500	mg/L	1	21-May-2014 16:38
Vanadium	0.00866		0.000900	0.00500	mg/L	1	21-May-2014 16:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-23-0414
 Collection Date: 22-Apr-2014 09:35

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-25
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.010	0.10	mg/L	20	02-May-2014 22:37
1,1,2,2-Tetrachloroethane	U		0.010	0.10	mg/L	20	02-May-2014 22:37
1,1,2-Trichloroethane	U		0.010	0.10	mg/L	20	02-May-2014 22:37
1,1-Dichloroethane	U		0.0080	0.10	mg/L	20	02-May-2014 22:37
1,1-Dichloroethene	U		0.010	0.10	mg/L	20	02-May-2014 22:37
1,2,4-Trimethylbenzene	0.020	J	0.010	0.10	mg/L	20	02-May-2014 22:37
1,2-Dibromoethane	U		0.0080	0.10	mg/L	20	02-May-2014 22:37
1,2-Dichloroethane	U		0.010	0.10	mg/L	20	02-May-2014 22:37
1,2-Dichloropropane	U		0.014	0.10	mg/L	20	02-May-2014 22:37
1,3,5-Trimethylbenzene	U		0.012	0.10	mg/L	20	02-May-2014 22:37
2-Butanone	U		0.020	0.20	mg/L	20	02-May-2014 22:37
2-Hexanone	U		0.020	0.20	mg/L	20	02-May-2014 22:37
4-Isopropyltoluene	U		0.010	0.10	mg/L	20	02-May-2014 22:37
4-Methyl-2-pentanone	U		0.020	0.20	mg/L	20	02-May-2014 22:37
Acetone	U		0.040	0.20	mg/L	20	02-May-2014 22:37
Benzene	11		0.12	1.0	mg/L	200	02-May-2014 21:55
Bromodichloromethane	U		0.012	0.10	mg/L	20	02-May-2014 22:37
Bromoform	U		0.010	0.10	mg/L	20	02-May-2014 22:37
Bromomethane	U		0.010	0.10	mg/L	20	02-May-2014 22:37
Carbon disulfide	U		0.018	0.20	mg/L	20	02-May-2014 22:37
Carbon tetrachloride	U		0.012	0.10	mg/L	20	02-May-2014 22:37
Chlorobenzene	U		0.0080	0.10	mg/L	20	02-May-2014 22:37
Chloroethane	U		0.010	0.10	mg/L	20	02-May-2014 22:37
Chloroform	U		0.012	0.10	mg/L	20	02-May-2014 22:37
Chloromethane	U		0.010	0.10	mg/L	20	02-May-2014 22:37
cis-1,2-Dichloroethene	U		0.012	0.10	mg/L	20	02-May-2014 22:37
cis-1,3-Dichloropropene	U		0.012	0.10	mg/L	20	02-May-2014 22:37
Dibromochloromethane	U		0.010	0.10	mg/L	20	02-May-2014 22:37
Ethylbenzene	0.32		0.010	0.10	mg/L	20	02-May-2014 22:37
Isopropylbenzene	0.097	J	0.010	0.10	mg/L	20	02-May-2014 22:37
m,p-Xylene	0.035	J	0.012	0.20	mg/L	20	02-May-2014 22:37
Methyl tert-butyl ether	U		0.012	0.10	mg/L	20	02-May-2014 22:37
Methylene chloride	U		0.020	0.20	mg/L	20	02-May-2014 22:37
Naphthalene	0.20		0.014	0.10	mg/L	20	02-May-2014 22:37
n-Butylbenzene	U		0.020	0.10	mg/L	20	02-May-2014 22:37
n-Propylbenzene	0.15		0.010	0.10	mg/L	20	02-May-2014 22:37
o-Xylene	U		0.010	0.10	mg/L	20	02-May-2014 22:37
sec-Butylbenzene	0.013	J	0.012	0.10	mg/L	20	02-May-2014 22:37
Styrene	U		0.010	0.10	mg/L	20	02-May-2014 22:37
Tetrachloroethene	U		0.012	0.10	mg/L	20	02-May-2014 22:37
Toluene	U		0.010	0.10	mg/L	20	02-May-2014 22:37
trans-1,2-Dichloroethene	U		0.0080	0.10	mg/L	20	02-May-2014 22:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-23-0414
 Collection Date: 22-Apr-2014 09:35

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-25
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
trans-1,3-Dichloropropene	U		0.012	0.10	mg/L	20	02-May-2014 22:37
Trichloroethene	U		0.010	0.10	mg/L	20	02-May-2014 22:37
Vinyl chloride	U		0.0080	0.040	mg/L	20	02-May-2014 22:37
Xylenes, Total	0.035	J	0.030	0.30	mg/L	20	02-May-2014 22:37
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	20	02-May-2014 22:37
Surr: 1,2-Dichloroethane-d4	96.5			70-125	%REC	200	02-May-2014 21:55
Surr: 4-Bromofluorobenzene	99.8			72-125	%REC	20	02-May-2014 22:37
Surr: 4-Bromofluorobenzene	102			72-125	%REC	200	02-May-2014 21:55
Surr: Dibromofluoromethane	105			71-125	%REC	20	02-May-2014 22:37
Surr: Dibromofluoromethane	102			71-125	%REC	200	02-May-2014 21:55
Surr: Toluene-d8	94.7			75-125	%REC	20	02-May-2014 22:37
Surr: Toluene-d8	95.8			75-125	%REC	200	02-May-2014 21:55
ICP-MS METALS BY SW6020A			Method:SW6020			Prep:SW3010A / 07-May-2014 Analyst: ALR	
Arsenic	0.00898		0.00100	0.00500	mg/L	1	27-May-2014 00:46
Barium	9.23		0.00900	0.0500	mg/L	10	26-May-2014 20:48
Calcium	88.3		0.0670	0.500	mg/L	1	27-May-2014 00:46
Chromium	U		0.00100	0.00500	mg/L	1	27-May-2014 00:46
Iron	U		0.0500	0.200	mg/L	1	27-May-2014 00:46
Lead	0.00224	J	0.000700	0.00500	mg/L	1	27-May-2014 00:46
Manganese	0.0877		0.00250	0.00500	mg/L	1	27-May-2014 00:46
Potassium	1.12		0.0500	0.200	mg/L	1	27-May-2014 00:46
Selenium	0.00280	J	0.00100	0.00500	mg/L	1	27-May-2014 00:46
Sodium	483		0.500	2.00	mg/L	10	26-May-2014 20:48
GASOLINE RANGE ORGANICS BY SW8015C			Method:SW8015			Analyst: DNR	
Gasoline Range Organics	32.1		0.0100	0.0500	mg/L	1	01-May-2014 14:44
Surr: 4-Bromofluorobenzene	88.9			70-130	%REC	1	01-May-2014 14:44
TOTAL DISSOLVED SOLIDS BY SM2540C			Method:M2540C			Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	1,940		5.00	10.0	mg/L	1	28-Apr-2014 18:40
ANIONS BY E300.0			Method:E300			Analyst: JKP	
Chloride	509		10.0	25.0	mg/L	50	06-May-2014 00:02
Fluoride	1.33		0.0500	0.100	mg/L	1	06-May-2014 04:38
Sulfate	24.0		0.200	0.500	mg/L	1	06-May-2014 04:38
TPH DRO/ORO BY SW8015C			Method:SW8015M			Prep:SW3511 / 28-Apr-2014 Analyst: RPM	
TPH (Diesel Range)	6.0		0.020	0.050	mg/L	1	29-Apr-2014 19:00
Surr: 2-Fluorobiphenyl	115			60-135	%REC	1	29-Apr-2014 19:00
NITRATE/NITRITE BY E300.0			Method:E300			Analyst: JKP	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	12-May-2014 22:42

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-23-0414-D
Collection Date: 22-Apr-2014 09:35

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-26
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014		Analyst: ALR	
Arsenic	0.0101		0.00100	0.00500	mg/L	1	21-May-2014 17:59
Barium	9.40		0.0900	0.500	mg/L	100	22-May-2014 15:35
Chromium	U		0.00100	0.00500	mg/L	1	21-May-2014 17:59
Iron	U		0.0780	0.200	mg/L	1	21-May-2014 17:59
Lead	0.0107		0.000700	0.00500	mg/L	1	21-May-2014 17:59
Manganese	0.0910		0.00250	0.00500	mg/L	1	21-May-2014 17:59
Selenium	U		0.00100	0.00500	mg/L	1	21-May-2014 17:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-62-0414
 Collection Date: 22-Apr-2014 10:10

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-27
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 20:13
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 20:13
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 20:13
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	02-May-2014 20:13
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	02-May-2014 20:13
1,2,4-Trimethylbenzene	0.27	E	0.00050	0.0050	mg/L	1	02-May-2014 20:13
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	02-May-2014 20:13
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 20:13
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	02-May-2014 20:13
1,3,5-Trimethylbenzene	0.060		0.00060	0.0050	mg/L	1	02-May-2014 20:13
2-Butanone	U		0.0010	0.010	mg/L	1	02-May-2014 20:13
2-Hexanone	U		0.0010	0.010	mg/L	1	02-May-2014 20:13
4-Isopropyltoluene	0.0034	J	0.00050	0.0050	mg/L	1	02-May-2014 20:13
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	02-May-2014 20:13
Acetone	U		0.0020	0.010	mg/L	1	02-May-2014 20:13
Benzene	1.0		0.0060	0.050	mg/L	10	02-May-2014 19:33
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	02-May-2014 20:13
Bromoform	U		0.00050	0.0050	mg/L	1	02-May-2014 20:13
Bromomethane	U		0.00050	0.0050	mg/L	1	02-May-2014 20:13
Carbon disulfide	0.0026	J	0.00090	0.010	mg/L	1	02-May-2014 20:13
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	02-May-2014 20:13
Chlorobenzene	U		0.00040	0.0050	mg/L	1	02-May-2014 20:13
Chloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 20:13
Chloroform	U		0.00060	0.0050	mg/L	1	02-May-2014 20:13
Chloromethane	U		0.00050	0.0050	mg/L	1	02-May-2014 20:13
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	02-May-2014 20:13
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	02-May-2014 20:13
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	02-May-2014 20:13
Ethylbenzene	0.093		0.00050	0.0050	mg/L	1	02-May-2014 20:13
Isopropylbenzene	0.070		0.00050	0.0050	mg/L	1	02-May-2014 20:13
m,p-Xylene	0.72		0.0060	0.10	mg/L	10	02-May-2014 19:33
Methyl tert-butyl ether	0.0022	J	0.00060	0.0050	mg/L	1	02-May-2014 20:13
Methylene chloride	U		0.0010	0.010	mg/L	1	02-May-2014 20:13
Naphthalene	0.11		0.00070	0.0050	mg/L	1	02-May-2014 20:13
n-Butylbenzene	0.013		0.0010	0.0050	mg/L	1	02-May-2014 20:13
n-Propylbenzene	0.11		0.00050	0.0050	mg/L	1	02-May-2014 20:13
o-Xylene	U		0.0050	0.050	mg/L	10	02-May-2014 19:33
sec-Butylbenzene	0.011		0.00060	0.0050	mg/L	1	02-May-2014 20:13
Styrene	U		0.00050	0.0050	mg/L	1	02-May-2014 20:13
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	02-May-2014 20:13
Toluene	0.0056		0.00050	0.0050	mg/L	1	02-May-2014 20:13
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	02-May-2014 20:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-62-0414
 Collection Date: 22-Apr-2014 10:10

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-27
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	02-May-2014 20:13
Trichloroethene	U		0.00050	0.0050	mg/L	1	02-May-2014 20:13
Vinyl chloride	U		0.00040	0.0020	mg/L	1	02-May-2014 20:13
Xylenes, Total	0.72		0.015	0.15	mg/L	10	02-May-2014 19:33
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	02-May-2014 20:13
Surr: 1,2-Dichloroethane-d4	92.4			70-125	%REC	10	02-May-2014 19:33
Surr: 4-Bromofluorobenzene	104			72-125	%REC	1	02-May-2014 20:13
Surr: 4-Bromofluorobenzene	94.8			72-125	%REC	10	02-May-2014 19:33
Surr: Dibromofluoromethane	102			71-125	%REC	1	02-May-2014 20:13
Surr: Dibromofluoromethane	96.3			71-125	%REC	10	02-May-2014 19:33
Surr: Toluene-d8	96.2			75-125	%REC	1	02-May-2014 20:13
Surr: Toluene-d8	96.0			75-125	%REC	10	02-May-2014 19:33
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014		Analyst: ALR	
Arsenic	0.00288	J	0.00100	0.00500	mg/L	1	27-May-2014 00:50
Barium	0.0679		0.000900	0.00500	mg/L	1	27-May-2014 00:50
Calcium	285		0.670	5.00	mg/L	10	27-May-2014 16:21
Chromium	U		0.00100	0.00500	mg/L	1	27-May-2014 00:50
Iron	0.0711	J	0.0500	0.200	mg/L	1	27-May-2014 00:50
Lead	U		0.000700	0.00500	mg/L	1	27-May-2014 00:50
Manganese	0.00786		0.00250	0.00500	mg/L	1	27-May-2014 00:50
Potassium	1.12		0.0500	0.200	mg/L	1	27-May-2014 00:50
Selenium	0.00279	J	0.00100	0.00500	mg/L	1	27-May-2014 00:50
Sodium	224		0.500	2.00	mg/L	10	26-May-2014 21:14
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	7.37		0.0100	0.0500	mg/L	1	01-May-2014 15:03
Surr: 4-Bromofluorobenzene	125			70-130	%REC	1	01-May-2014 15:03
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	3,430		5.00	10.0	mg/L	1	28-Apr-2014 18:40
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	240		10.0	25.0	mg/L	50	06-May-2014 00:16
Fluoride	1.11		0.0500	0.100	mg/L	1	06-May-2014 04:52
Sulfate	440		10.0	25.0	mg/L	50	06-May-2014 00:16
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 28-Apr-2014		Analyst: RPM	
TPH (Diesel Range)	2.0		0.020	0.050	mg/L	1	29-Apr-2014 20:19
Surr: 2-Fluorobiphenyl	78.9			60-135	%REC	1	29-Apr-2014 20:19
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	12-May-2014 22:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-62-0414-D
Collection Date: 22-Apr-2014 10:10

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-28
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014		Analyst: ALR	
Arsenic	0.00406	J	0.00100	0.00500	mg/L	1	21-May-2014 18:04
Barium	0.0689		0.000900	0.00500	mg/L	1	22-May-2014 15:39
Chromium	U		0.00100	0.00500	mg/L	1	21-May-2014 18:04
Iron	U		0.0780	0.200	mg/L	1	21-May-2014 18:04
Lead	U		0.000700	0.00500	mg/L	1	21-May-2014 18:04
Manganese	0.00390	J	0.00250	0.00500	mg/L	1	21-May-2014 18:04
Selenium	0.00135	J	0.00100	0.00500	mg/L	1	21-May-2014 18:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-106-0414
 Collection Date: 22-Apr-2014 10:45

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-29
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.010	0.10	mg/L	20	02-May-2014 23:02
1,1,2,2-Tetrachloroethane	U		0.010	0.10	mg/L	20	02-May-2014 23:02
1,1,2-Trichloroethane	U		0.010	0.10	mg/L	20	02-May-2014 23:02
1,1-Dichloroethane	U		0.0080	0.10	mg/L	20	02-May-2014 23:02
1,1-Dichloroethene	U		0.010	0.10	mg/L	20	02-May-2014 23:02
1,2,4-Trimethylbenzene	0.097	J	0.010	0.10	mg/L	20	02-May-2014 23:02
1,2-Dibromoethane	U		0.0080	0.10	mg/L	20	02-May-2014 23:02
1,2-Dichloroethane	U		0.010	0.10	mg/L	20	02-May-2014 23:02
1,2-Dichloropropane	U		0.014	0.10	mg/L	20	02-May-2014 23:02
1,3,5-Trimethylbenzene	0.018	J	0.012	0.10	mg/L	20	02-May-2014 23:02
2-Butanone	U		0.020	0.20	mg/L	20	02-May-2014 23:02
2-Hexanone	U		0.020	0.20	mg/L	20	02-May-2014 23:02
4-Isopropyltoluene	U		0.010	0.10	mg/L	20	02-May-2014 23:02
4-Methyl-2-pentanone	U		0.020	0.20	mg/L	20	02-May-2014 23:02
Acetone	U		0.040	0.20	mg/L	20	02-May-2014 23:02
Benzene	9.3		0.12	1.0	mg/L	200	02-May-2014 22:20
Bromodichloromethane	U		0.012	0.10	mg/L	20	02-May-2014 23:02
Bromoform	U		0.010	0.10	mg/L	20	02-May-2014 23:02
Bromomethane	U		0.010	0.10	mg/L	20	02-May-2014 23:02
Carbon disulfide	0.019	J	0.018	0.20	mg/L	20	02-May-2014 23:02
Carbon tetrachloride	U		0.012	0.10	mg/L	20	02-May-2014 23:02
Chlorobenzene	U		0.0080	0.10	mg/L	20	02-May-2014 23:02
Chloroethane	U		0.010	0.10	mg/L	20	02-May-2014 23:02
Chloroform	U		0.012	0.10	mg/L	20	02-May-2014 23:02
Chloromethane	U		0.010	0.10	mg/L	20	02-May-2014 23:02
cis-1,2-Dichloroethene	U		0.012	0.10	mg/L	20	02-May-2014 23:02
cis-1,3-Dichloropropene	U		0.012	0.10	mg/L	20	02-May-2014 23:02
Dibromochloromethane	U		0.010	0.10	mg/L	20	02-May-2014 23:02
Ethylbenzene	0.16		0.010	0.10	mg/L	20	02-May-2014 23:02
Isopropylbenzene	0.036	J	0.010	0.10	mg/L	20	02-May-2014 23:02
m,p-Xylene	0.29		0.012	0.20	mg/L	20	02-May-2014 23:02
Methyl tert-butyl ether	0.047	J	0.012	0.10	mg/L	20	02-May-2014 23:02
Methylene chloride	U		0.020	0.20	mg/L	20	02-May-2014 23:02
Naphthalene	0.083	J	0.014	0.10	mg/L	20	02-May-2014 23:02
n-Butylbenzene	U		0.020	0.10	mg/L	20	02-May-2014 23:02
n-Propylbenzene	0.047	J	0.010	0.10	mg/L	20	02-May-2014 23:02
o-Xylene	0.024	J	0.010	0.10	mg/L	20	02-May-2014 23:02
sec-Butylbenzene	U		0.012	0.10	mg/L	20	02-May-2014 23:02
Styrene	U		0.010	0.10	mg/L	20	02-May-2014 23:02
Tetrachloroethene	U		0.012	0.10	mg/L	20	02-May-2014 23:02
Toluene	0.35		0.010	0.10	mg/L	20	02-May-2014 23:02
trans-1,2-Dichloroethene	U		0.0080	0.10	mg/L	20	02-May-2014 23:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-106-0414
 Collection Date: 22-Apr-2014 10:45

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-29
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
trans-1,3-Dichloropropene	U		0.012	0.10	mg/L	20	02-May-2014 23:02
Trichloroethene	U		0.010	0.10	mg/L	20	02-May-2014 23:02
Vinyl chloride	U		0.0080	0.040	mg/L	20	02-May-2014 23:02
Xylenes, Total	0.31		0.030	0.30	mg/L	20	02-May-2014 23:02
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	20	02-May-2014 23:02
Surr: 1,2-Dichloroethane-d4	100			70-125	%REC	200	02-May-2014 22:20
Surr: 4-Bromofluorobenzene	101			72-125	%REC	20	02-May-2014 23:02
Surr: 4-Bromofluorobenzene	100.0			72-125	%REC	200	02-May-2014 22:20
Surr: Dibromofluoromethane	103			71-125	%REC	20	02-May-2014 23:02
Surr: Dibromofluoromethane	101			71-125	%REC	200	02-May-2014 22:20
Surr: Toluene-d8	95.9			75-125	%REC	20	02-May-2014 23:02
Surr: Toluene-d8	98.8			75-125	%REC	200	02-May-2014 22:20
ICP-MS METALS BY SW6020A			Method:SW6020			Prep:SW3010A / 07-May-2014 Analyst: ALR	
Arsenic	0.00755		0.00100	0.00500	mg/L	1	27-May-2014 00:55
Barium	0.0300		0.000900	0.00500	mg/L	1	27-May-2014 00:55
Calcium	400		0.670	5.00	mg/L	10	27-May-2014 16:27
Chromium	0.00115	J	0.00100	0.00500	mg/L	1	27-May-2014 00:55
Iron	0.101	J	0.0500	0.200	mg/L	1	27-May-2014 00:55
Lead	0.00337	J	0.000700	0.00500	mg/L	1	27-May-2014 00:55
Manganese	0.0124		0.00250	0.00500	mg/L	1	27-May-2014 00:55
Potassium	1.90		0.0500	0.200	mg/L	1	27-May-2014 00:55
Selenium	0.00320	J	0.00100	0.00500	mg/L	1	27-May-2014 00:55
Sodium	195		0.500	2.00	mg/L	10	26-May-2014 21:19
GASOLINE RANGE ORGANICS BY SW8015C			Method:SW8015			Analyst: DNR	
Gasoline Range Organics	27.9		0.0100	0.0500	mg/L	1	01-May-2014 15:39
Surr: 4-Bromofluorobenzene	125			70-130	%REC	1	01-May-2014 15:39
TOTAL DISSOLVED SOLIDS BY SM2540C			Method:M2540C			Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	3,350		5.00	10.0	mg/L	1	28-Apr-2014 18:40
ANIONS BY E300.0			Method:E300			Analyst: JKP	
Chloride	160		10.0	25.0	mg/L	50	06-May-2014 00:31
Fluoride	1.00		0.0500	0.100	mg/L	1	06-May-2014 05:07
Sulfate	1,500		10.0	25.0	mg/L	50	06-May-2014 00:31
TPH DRO/ORO BY SW8015C			Method:SW8015M			Prep:SW3511 / 28-Apr-2014 Analyst: RPM	
TPH (Diesel Range)	2.1		0.020	0.050	mg/L	1	29-Apr-2014 20:46
Surr: 2-Fluorobiphenyl	72.9			60-135	%REC	1	29-Apr-2014 20:46
NITRATE/NITRITE BY E300.0			Method:E300			Analyst: JKP	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	12-May-2014 23:11

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-106-0414-D
Collection Date: 22-Apr-2014 10:45

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-30
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014		Analyst: ALR	
Arsenic	0.00920		0.00100	0.00500	mg/L	1	21-May-2014 18:08
Barium	0.0328		0.000900	0.00500	mg/L	1	22-May-2014 15:43
Chromium	0.00126	J	0.00100	0.00500	mg/L	1	21-May-2014 18:08
Iron	U		0.0780	0.200	mg/L	1	21-May-2014 18:08
Lead	0.00309	J	0.000700	0.00500	mg/L	1	21-May-2014 18:08
Manganese	0.0125		0.00250	0.00500	mg/L	1	21-May-2014 18:08
Selenium	0.00137	J	0.00100	0.00500	mg/L	1	21-May-2014 18:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-98-0414
 Collection Date: 22-Apr-2014 11:20

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-31
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.0050	0.050	mg/L	10	02-May-2014 23:26
1,1,2,2-Tetrachloroethane	U		0.0050	0.050	mg/L	10	02-May-2014 23:26
1,1,2-Trichloroethane	U		0.0050	0.050	mg/L	10	02-May-2014 23:26
1,1-Dichloroethane	U		0.0040	0.050	mg/L	10	02-May-2014 23:26
1,1-Dichloroethene	U		0.0050	0.050	mg/L	10	02-May-2014 23:26
1,2,4-Trimethylbenzene	0.44		0.0050	0.050	mg/L	10	02-May-2014 23:26
1,2-Dibromoethane	U		0.0040	0.050	mg/L	10	02-May-2014 23:26
1,2-Dichloroethane	U		0.0050	0.050	mg/L	10	02-May-2014 23:26
1,2-Dichloropropane	U		0.0070	0.050	mg/L	10	02-May-2014 23:26
1,3,5-Trimethylbenzene	0.10		0.0060	0.050	mg/L	10	02-May-2014 23:26
2-Butanone	0.046	J	0.010	0.10	mg/L	10	02-May-2014 23:26
2-Hexanone	U		0.010	0.10	mg/L	10	02-May-2014 23:26
4-Isopropyltoluene	0.0080	J	0.0050	0.050	mg/L	10	02-May-2014 23:26
4-Methyl-2-pentanone	U		0.010	0.10	mg/L	10	02-May-2014 23:26
Acetone	0.038	J	0.020	0.10	mg/L	10	02-May-2014 23:26
Benzene	5.8		0.060	0.50	mg/L	100	02-May-2014 21:30
Bromodichloromethane	U		0.0060	0.050	mg/L	10	02-May-2014 23:26
Bromoform	U		0.0050	0.050	mg/L	10	02-May-2014 23:26
Bromomethane	U		0.0050	0.050	mg/L	10	02-May-2014 23:26
Carbon disulfide	0.016	J	0.0090	0.10	mg/L	10	02-May-2014 23:26
Carbon tetrachloride	U		0.0060	0.050	mg/L	10	02-May-2014 23:26
Chlorobenzene	U		0.0040	0.050	mg/L	10	02-May-2014 23:26
Chloroethane	U		0.0050	0.050	mg/L	10	02-May-2014 23:26
Chloroform	U		0.0060	0.050	mg/L	10	02-May-2014 23:26
Chloromethane	U		0.0050	0.050	mg/L	10	02-May-2014 23:26
cis-1,2-Dichloroethene	U		0.0060	0.050	mg/L	10	02-May-2014 23:26
cis-1,3-Dichloropropene	U		0.0060	0.050	mg/L	10	02-May-2014 23:26
Dibromochloromethane	U		0.0050	0.050	mg/L	10	02-May-2014 23:26
Ethylbenzene	1.0		0.0050	0.050	mg/L	10	02-May-2014 23:26
Isopropylbenzene	0.085		0.0050	0.050	mg/L	10	02-May-2014 23:26
m,p-Xylene	1.9		0.0060	0.10	mg/L	10	02-May-2014 23:26
Methyl tert-butyl ether	U		0.0060	0.050	mg/L	10	02-May-2014 23:26
Methylene chloride	U		0.010	0.10	mg/L	10	02-May-2014 23:26
Naphthalene	0.23		0.0070	0.050	mg/L	10	02-May-2014 23:26
n-Butylbenzene	0.020	J	0.010	0.050	mg/L	10	02-May-2014 23:26
n-Propylbenzene	0.11		0.0050	0.050	mg/L	10	02-May-2014 23:26
o-Xylene	0.031	J	0.0050	0.050	mg/L	10	02-May-2014 23:26
sec-Butylbenzene	U		0.0060	0.050	mg/L	10	02-May-2014 23:26
Styrene	U		0.0050	0.050	mg/L	10	02-May-2014 23:26
Tetrachloroethene	U		0.0060	0.050	mg/L	10	02-May-2014 23:26
Toluene	0.30		0.0050	0.050	mg/L	10	02-May-2014 23:26
trans-1,2-Dichloroethene	U		0.0040	0.050	mg/L	10	02-May-2014 23:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-98-0414
 Collection Date: 22-Apr-2014 11:20

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-31
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
trans-1,3-Dichloropropene	U		0.0060	0.050	mg/L	10	02-May-2014 23:26
Trichloroethene	U		0.0050	0.050	mg/L	10	02-May-2014 23:26
Vinyl chloride	U		0.0040	0.020	mg/L	10	02-May-2014 23:26
Xylenes, Total	1.9		0.015	0.15	mg/L	10	02-May-2014 23:26
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	10	02-May-2014 23:26
Surr: 1,2-Dichloroethane-d4	97.9			70-125	%REC	100	02-May-2014 21:30
Surr: 4-Bromofluorobenzene	103			72-125	%REC	10	02-May-2014 23:26
Surr: 4-Bromofluorobenzene	102			72-125	%REC	100	02-May-2014 21:30
Surr: Dibromofluoromethane	104			71-125	%REC	10	02-May-2014 23:26
Surr: Dibromofluoromethane	99.3			71-125	%REC	100	02-May-2014 21:30
Surr: Toluene-d8	98.2			75-125	%REC	10	02-May-2014 23:26
Surr: Toluene-d8	96.3			75-125	%REC	100	02-May-2014 21:30
ICP-MS METALS BY SW6020A			Method:SW6020			Prep:SW3010A / 07-May-2014 Analyst: ALR	
Arsenic	0.00167	J	0.00100	0.00500	mg/L	1	27-May-2014 00:59
Barium	0.0156		0.000900	0.00500	mg/L	1	27-May-2014 00:59
Calcium	471		0.670	5.00	mg/L	10	27-May-2014 16:32
Chromium	U		0.00100	0.00500	mg/L	1	27-May-2014 00:59
Iron	U		0.0500	0.200	mg/L	1	27-May-2014 00:59
Lead	0.00919		0.000700	0.00500	mg/L	1	27-May-2014 00:59
Manganese	0.0259		0.00250	0.00500	mg/L	1	27-May-2014 00:59
Potassium	0.218		0.0500	0.200	mg/L	1	27-May-2014 00:59
Selenium	0.00335	J	0.00100	0.00500	mg/L	1	27-May-2014 00:59
Sodium	92.1		0.500	2.00	mg/L	10	26-May-2014 21:23
GASOLINE RANGE ORGANICS BY SW8015C			Method:SW8015			Analyst: DNR	
Gasoline Range Organics	32.1		0.0100	0.0500	mg/L	1	01-May-2014 15:57
Surr: 4-Bromofluorobenzene	128			70-130	%REC	1	01-May-2014 15:57
TOTAL DISSOLVED SOLIDS BY SM2540C			Method:M2540C			Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	3,360		5.00	10.0	mg/L	1	28-Apr-2014 18:40
ANIONS BY E300.0			Method:E300			Analyst: JKP	
Chloride	36.3		0.200	0.500	mg/L	1	06-May-2014 05:22
Fluoride	0.962		0.0500	0.100	mg/L	1	06-May-2014 05:22
Sulfate	1,800		10.0	25.0	mg/L	50	06-May-2014 00:45
TPH DRO/ORO BY SW8015C			Method:SW8015M			Prep:SW3511 / 28-Apr-2014 Analyst: RPM	
TPH (Diesel Range)	2.2		0.020	0.050	mg/L	1	29-Apr-2014 21:12
Surr: 2-Fluorobiphenyl	72.1			60-135	%REC	1	29-Apr-2014 21:12
NITRATE/NITRITE BY E300.0			Method:E300			Analyst: JKP	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	12-May-2014 23:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-98-0414-D
Collection Date: 22-Apr-2014 11:20

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-32
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014		Analyst: ALR	
Arsenic	0.00226	J	0.00100	0.00500	mg/L	1	21-May-2014 18:12
Barium	0.0145		0.000900	0.00500	mg/L	1	21-May-2014 18:12
Chromium	U		0.00100	0.00500	mg/L	1	21-May-2014 18:12
Iron	U		0.0780	0.200	mg/L	1	21-May-2014 18:12
Lead	0.00912		0.000700	0.00500	mg/L	1	21-May-2014 18:12
Manganese	0.0273		0.00250	0.00500	mg/L	1	21-May-2014 18:12
Selenium	0.00155	J	0.00100	0.00500	mg/L	1	21-May-2014 18:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: Dup-11-0414
 Collection Date: 22-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-33
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.0050	0.050	mg/L	10	06-May-2014 18:50
1,1,2,2-Tetrachloroethane	U		0.0050	0.050	mg/L	10	06-May-2014 18:50
1,1,2-Trichloroethane	U		0.0050	0.050	mg/L	10	06-May-2014 18:50
1,1-Dichloroethane	U		0.0040	0.050	mg/L	10	06-May-2014 18:50
1,1-Dichloroethene	U		0.0050	0.050	mg/L	10	06-May-2014 18:50
1,2,4-Trimethylbenzene	0.46		0.0050	0.050	mg/L	10	06-May-2014 18:50
1,2-Dibromoethane	U		0.0040	0.050	mg/L	10	06-May-2014 18:50
1,2-Dichloroethane	U		0.0050	0.050	mg/L	10	06-May-2014 18:50
1,2-Dichloropropane	U		0.0070	0.050	mg/L	10	06-May-2014 18:50
1,3,5-Trimethylbenzene	0.10		0.0060	0.050	mg/L	10	06-May-2014 18:50
2-Butanone	U		0.010	0.10	mg/L	10	06-May-2014 18:50
2-Hexanone	U		0.010	0.10	mg/L	10	06-May-2014 18:50
4-Isopropyltoluene	U		0.0050	0.050	mg/L	10	06-May-2014 18:50
4-Methyl-2-pentanone	U		0.010	0.10	mg/L	10	06-May-2014 18:50
Acetone	0.059	J	0.020	0.10	mg/L	10	06-May-2014 18:50
Benzene	6.1		0.060	0.50	mg/L	100	06-May-2014 19:14
Bromodichloromethane	U		0.0060	0.050	mg/L	10	06-May-2014 18:50
Bromoform	U		0.0050	0.050	mg/L	10	06-May-2014 18:50
Bromomethane	U		0.0050	0.050	mg/L	10	06-May-2014 18:50
Carbon disulfide	U		0.0090	0.10	mg/L	10	06-May-2014 18:50
Carbon tetrachloride	U		0.0060	0.050	mg/L	10	06-May-2014 18:50
Chlorobenzene	U		0.0040	0.050	mg/L	10	06-May-2014 18:50
Chloroethane	U		0.0050	0.050	mg/L	10	06-May-2014 18:50
Chloroform	U		0.0060	0.050	mg/L	10	06-May-2014 18:50
Chloromethane	U		0.0050	0.050	mg/L	10	06-May-2014 18:50
cis-1,2-Dichloroethene	U		0.0060	0.050	mg/L	10	06-May-2014 18:50
cis-1,3-Dichloropropene	U		0.0060	0.050	mg/L	10	06-May-2014 18:50
Dibromochloromethane	U		0.0050	0.050	mg/L	10	06-May-2014 18:50
Ethylbenzene	1.0		0.0050	0.050	mg/L	10	06-May-2014 18:50
Isopropylbenzene	0.078		0.0050	0.050	mg/L	10	06-May-2014 18:50
m,p-Xylene	2.0		0.0060	0.10	mg/L	10	06-May-2014 18:50
Methyl tert-butyl ether	U		0.0060	0.050	mg/L	10	06-May-2014 18:50
Methylene chloride	U		0.010	0.10	mg/L	10	06-May-2014 18:50
Naphthalene	0.21		0.0070	0.050	mg/L	10	06-May-2014 18:50
n-Butylbenzene	U		0.010	0.050	mg/L	10	06-May-2014 18:50
n-Propylbenzene	0.11		0.0050	0.050	mg/L	10	06-May-2014 18:50
o-Xylene	0.033	J	0.0050	0.050	mg/L	10	06-May-2014 18:50
sec-Butylbenzene	U		0.0060	0.050	mg/L	10	06-May-2014 18:50
Styrene	U		0.0050	0.050	mg/L	10	06-May-2014 18:50
Tetrachloroethene	U		0.0060	0.050	mg/L	10	06-May-2014 18:50
Toluene	0.32		0.0050	0.050	mg/L	10	06-May-2014 18:50
trans-1,2-Dichloroethene	U		0.0040	0.050	mg/L	10	06-May-2014 18:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: Dup-11-0414
 Collection Date: 22-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-33
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
trans-1,3-Dichloropropene	U		0.0060	0.050	mg/L	10	06-May-2014 18:50
Trichloroethene	U		0.0050	0.050	mg/L	10	06-May-2014 18:50
Vinyl chloride	U		0.0040	0.020	mg/L	10	06-May-2014 18:50
Xylenes, Total	2.0		0.015	0.15	mg/L	10	06-May-2014 18:50
Surr: 1,2-Dichloroethane-d4	111			70-125	%REC	100	06-May-2014 19:14
Surr: 1,2-Dichloroethane-d4	110			70-125	%REC	10	06-May-2014 18:50
Surr: 4-Bromofluorobenzene	99.2			72-125	%REC	100	06-May-2014 19:14
Surr: 4-Bromofluorobenzene	102			72-125	%REC	10	06-May-2014 18:50
Surr: Dibromofluoromethane	109			71-125	%REC	100	06-May-2014 19:14
Surr: Dibromofluoromethane	103			71-125	%REC	10	06-May-2014 18:50
Surr: Toluene-d8	100			75-125	%REC	100	06-May-2014 19:14
Surr: Toluene-d8	102			75-125	%REC	10	06-May-2014 18:50
ICP-MS METALS BY SW6020A			Method:SW6020			Prep:SW3010A / 07-May-2014 Analyst: ALR	
Arsenic	0.00177	J	0.00100	0.00500	mg/L	1	27-May-2014 01:04
Barium	0.0145		0.000900	0.00500	mg/L	1	27-May-2014 01:04
Calcium	475		0.670	5.00	mg/L	10	27-May-2014 16:36
Chromium	U		0.00100	0.00500	mg/L	1	27-May-2014 01:04
Iron	U		0.0500	0.200	mg/L	1	27-May-2014 01:04
Lead	0.00934		0.000700	0.00500	mg/L	1	27-May-2014 01:04
Manganese	0.0267		0.00250	0.00500	mg/L	1	27-May-2014 01:04
Potassium	0.229		0.0500	0.200	mg/L	1	27-May-2014 01:04
Selenium	0.00464	J	0.00100	0.00500	mg/L	1	27-May-2014 01:04
Sodium	92.8		0.500	2.00	mg/L	10	26-May-2014 21:27
GASOLINE RANGE ORGANICS BY SW8015C			Method:SW8015			Analyst: DNR	
Gasoline Range Organics	32.5		0.0100	0.0500	mg/L	1	01-May-2014 16:15
Surr: 4-Bromofluorobenzene	127			70-130	%REC	1	01-May-2014 16:15
TOTAL DISSOLVED SOLIDS BY SM2540C			Method:M2540C			Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	3,390		5.00	10.0	mg/L	1	28-Apr-2014 18:40
ANIONS BY E300.0			Method:E300			Analyst: JKP	
Chloride	38.0		0.200	0.500	mg/L	1	06-May-2014 05:36
Fluoride	1.02		0.0500	0.100	mg/L	1	06-May-2014 05:36
Sulfate	1,810		10.0	25.0	mg/L	50	06-May-2014 01:00
TPH DRO/ORO BY SW8015C			Method:SW8015M			Analyst: RPM	
TPH (Diesel Range)	2.7		0.021	0.052	mg/L	1	29-Apr-2014 22:58
Surr: 2-Fluorobiphenyl	70.9			60-135	%REC	1	29-Apr-2014 22:58
NITRATE/NITRITE BY E300.0			Method:E300			Analyst: JKP	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	12-May-2014 23:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: Dup-11-0414-D
Collection Date: 22-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-34
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014		Analyst: ALR	
Arsenic	0.00239	J	0.00100	0.00500	mg/L	1	21-May-2014 18:17
Barium	0.0160		0.000900	0.00500	mg/L	1	21-May-2014 18:17
Chromium	0.00142	J	0.00100	0.00500	mg/L	1	21-May-2014 18:17
Iron		U	0.0780	0.200	mg/L	1	21-May-2014 18:17
Lead	0.00986		0.000700	0.00500	mg/L	1	21-May-2014 18:17
Manganese	0.0274		0.00250	0.00500	mg/L	1	21-May-2014 18:17
Selenium	0.00200	J	0.00100	0.00500	mg/L	1	21-May-2014 18:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-59-0414
 Collection Date: 22-Apr-2014 12:00

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-35
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 23:27
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 23:27
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 23:27
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 23:27
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 23:27
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 23:27
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	30-Apr-2014 23:27
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 23:27
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	30-Apr-2014 23:27
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 23:27
2-Butanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 23:27
2-Hexanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 23:27
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 23:27
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	30-Apr-2014 23:27
Acetone	U		0.0020	0.010	mg/L	1	30-Apr-2014 23:27
Benzene	0.013		0.00060	0.0050	mg/L	1	30-Apr-2014 23:27
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	30-Apr-2014 23:27
Bromoform	U		0.00050	0.0050	mg/L	1	30-Apr-2014 23:27
Bromomethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 23:27
Carbon disulfide	U		0.00090	0.010	mg/L	1	30-Apr-2014 23:27
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	30-Apr-2014 23:27
Chlorobenzene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 23:27
Chloroethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 23:27
Chloroform	U		0.00060	0.0050	mg/L	1	30-Apr-2014 23:27
Chloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 23:27
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 23:27
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 23:27
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	30-Apr-2014 23:27
Ethylbenzene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 23:27
Isopropylbenzene	0.0061		0.00050	0.0050	mg/L	1	30-Apr-2014 23:27
m,p-Xylene	U		0.00060	0.010	mg/L	1	30-Apr-2014 23:27
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	30-Apr-2014 23:27
Methylene chloride	U		0.0010	0.010	mg/L	1	30-Apr-2014 23:27
Naphthalene	U		0.00070	0.0050	mg/L	1	30-Apr-2014 23:27
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	30-Apr-2014 23:27
n-Propylbenzene	0.00066	J	0.00050	0.0050	mg/L	1	30-Apr-2014 23:27
o-Xylene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 23:27
sec-Butylbenzene	0.0013	J	0.00060	0.0050	mg/L	1	30-Apr-2014 23:27
Styrene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 23:27
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 23:27
Toluene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 23:27
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	30-Apr-2014 23:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-59-0414
 Collection Date: 22-Apr-2014 12:00

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-35
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	30-Apr-2014 23:27
Trichloroethene	U		0.00050	0.0050	mg/L	1	30-Apr-2014 23:27
Vinyl chloride	U		0.00040	0.0020	mg/L	1	30-Apr-2014 23:27
Xylenes, Total	U		0.0015	0.015	mg/L	1	30-Apr-2014 23:27
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	30-Apr-2014 23:27
Surr: 4-Bromofluorobenzene	100			72-125	%REC	1	30-Apr-2014 23:27
Surr: Dibromofluoromethane	103			71-125	%REC	1	30-Apr-2014 23:27
Surr: Toluene-d8	96.1			75-125	%REC	1	30-Apr-2014 23:27
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014 Analyst: ALR			
Arsenic	0.0324		0.00100	0.00500	mg/L	1	27-May-2014 01:08
Barium	0.0144		0.000900	0.00500	mg/L	1	27-May-2014 01:08
Calcium	514		0.670	5.00	mg/L	10	26-May-2014 22:55
Chromium	U		0.00100	0.00500	mg/L	1	27-May-2014 01:08
Iron	0.164	J	0.0500	0.200	mg/L	1	27-May-2014 01:08
Lead	U		0.000700	0.00500	mg/L	1	27-May-2014 01:08
Manganese	0.464		0.00250	0.00500	mg/L	1	27-May-2014 01:08
Potassium	0.643		0.0500	0.200	mg/L	1	27-May-2014 01:08
Selenium	0.00432	J	0.00100	0.00500	mg/L	1	27-May-2014 01:08
Sodium	156		0.500	2.00	mg/L	10	26-May-2014 22:55
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	0.247		0.0100	0.0500	mg/L	1	01-May-2014 16:33
Surr: 4-Bromofluorobenzene	119			70-130	%REC	1	01-May-2014 16:33
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	3,420		5.00	10.0	mg/L	1	29-Apr-2014 19:00
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	176		10.0	25.0	mg/L	50	06-May-2014 01:14
Fluoride	0.475		0.0500	0.100	mg/L	1	06-May-2014 05:51
Sulfate	1,890		10.0	25.0	mg/L	50	06-May-2014 01:14
TPH DRO/ORO BY SW8015C		Method:SW8015M		Analyst: RPM			
TPH (Diesel Range)	0.068		0.020	0.050	mg/L	1	29-Apr-2014 23:25
Surr: 2-Fluorobiphenyl	60.1			60-135	%REC	1	29-Apr-2014 23:25
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	12-May-2014 23:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-59-0414-D
Collection Date: 22-Apr-2014 12:00

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-36
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014		Analyst: ALR	
Arsenic	0.0324		0.00100	0.00500	mg/L	1	21-May-2014 18:21
Barium	0.0145		0.000900	0.00500	mg/L	1	21-May-2014 18:21
Chromium	U		0.00100	0.00500	mg/L	1	21-May-2014 18:21
Iron	0.152	J	0.0780	0.200	mg/L	1	21-May-2014 18:21
Lead	U		0.000700	0.00500	mg/L	1	21-May-2014 18:21
Manganese	0.480		0.00250	0.00500	mg/L	1	21-May-2014 18:21
Selenium	0.00267	J	0.00100	0.00500	mg/L	1	21-May-2014 18:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-60-0414
 Collection Date: 22-Apr-2014 12:35

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-37
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 16:49
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 16:49
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 16:49
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	06-May-2014 16:49
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 16:49
1,2,4-Trimethylbenzene	0.0029	J	0.00050	0.0050	mg/L	1	06-May-2014 16:49
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	06-May-2014 16:49
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 16:49
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	06-May-2014 16:49
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 16:49
2-Butanone	U		0.0010	0.010	mg/L	1	06-May-2014 16:49
2-Hexanone	U		0.0010	0.010	mg/L	1	06-May-2014 16:49
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	06-May-2014 16:49
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	06-May-2014 16:49
Acetone	U		0.0020	0.010	mg/L	1	06-May-2014 16:49
Benzene	0.030		0.00060	0.0050	mg/L	1	06-May-2014 16:49
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	06-May-2014 16:49
Bromoform	U		0.00050	0.0050	mg/L	1	06-May-2014 16:49
Bromomethane	U		0.00050	0.0050	mg/L	1	06-May-2014 16:49
Carbon disulfide	U		0.00090	0.010	mg/L	1	06-May-2014 16:49
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	06-May-2014 16:49
Chlorobenzene	U		0.00040	0.0050	mg/L	1	06-May-2014 16:49
Chloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 16:49
Chloroform	U		0.00060	0.0050	mg/L	1	06-May-2014 16:49
Chloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 16:49
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 16:49
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 16:49
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 16:49
Ethylbenzene	0.0019	J	0.00050	0.0050	mg/L	1	06-May-2014 16:49
Isopropylbenzene	0.018		0.00050	0.0050	mg/L	1	06-May-2014 16:49
m,p-Xylene	0.0063	J	0.00060	0.010	mg/L	1	06-May-2014 16:49
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	06-May-2014 16:49
Methylene chloride	U		0.0010	0.010	mg/L	1	06-May-2014 16:49
Naphthalene	0.0041	J	0.00070	0.0050	mg/L	1	06-May-2014 16:49
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	06-May-2014 16:49
n-Propylbenzene	0.0041	J	0.00050	0.0050	mg/L	1	06-May-2014 16:49
o-Xylene	U		0.00050	0.0050	mg/L	1	06-May-2014 16:49
sec-Butylbenzene	0.0036	J	0.00060	0.0050	mg/L	1	06-May-2014 16:49
Styrene	U		0.00050	0.0050	mg/L	1	06-May-2014 16:49
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 16:49
Toluene	U		0.00050	0.0050	mg/L	1	06-May-2014 16:49
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	06-May-2014 16:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-60-0414
 Collection Date: 22-Apr-2014 12:35

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-37
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 16:49
Trichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 16:49
Vinyl chloride	U		0.00040	0.0020	mg/L	1	06-May-2014 16:49
Xylenes, Total	0.0063	J	0.0015	0.015	mg/L	1	06-May-2014 16:49
Surr: 1,2-Dichloroethane-d4	110			70-125	%REC	1	06-May-2014 16:49
Surr: 4-Bromofluorobenzene	100			72-125	%REC	1	06-May-2014 16:49
Surr: Dibromofluoromethane	109			71-125	%REC	1	06-May-2014 16:49
Surr: Toluene-d8	100			75-125	%REC	1	06-May-2014 16:49
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014		Analyst: ALR	
Arsenic	0.00662		0.00100	0.00500	mg/L	1	22-May-2014 06:46
Barium	0.0191		0.000900	0.00500	mg/L	1	22-May-2014 06:46
Calcium	374		0.670	5.00	mg/L	10	26-May-2014 23:00
Chromium	U		0.00100	0.00500	mg/L	1	22-May-2014 06:46
Iron	0.0539	J	0.0500	0.200	mg/L	1	22-May-2014 06:46
Lead	U		0.000700	0.00500	mg/L	1	22-May-2014 06:46
Manganese	0.348		0.00250	0.00500	mg/L	1	22-May-2014 06:46
Nickel	U		0.00100	0.00500	mg/L	1	22-May-2014 06:46
Potassium	0.586		0.0500	0.200	mg/L	1	22-May-2014 06:46
Selenium	U		0.00100	0.00500	mg/L	1	22-May-2014 06:46
Sodium	181		0.500	2.00	mg/L	10	26-May-2014 23:00
Vanadium	U		0.000900	0.00500	mg/L	1	22-May-2014 06:46
CYANIDE BY SW9012B		Method:SW9012		Prep:SW9010C / 05-May-2014		Analyst: KKB	
Cyanide	0.140	J	0.0500	0.200	mg/L	10	06-May-2014 18:08
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	0.658		0.0100	0.0500	mg/L	1	01-May-2014 17:12
Surr: 4-Bromofluorobenzene	121			70-130	%REC	1	01-May-2014 17:12
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	3,440		5.00	10.0	mg/L	1	29-Apr-2014 19:00
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	238		10.0	25.0	mg/L	50	06-May-2014 01:29
Fluoride	2.50		0.0500	0.100	mg/L	1	06-May-2014 06:05
Sulfate	1,860		10.0	25.0	mg/L	50	06-May-2014 01:29
TPH DRO/ORO BY SW8015C		Method:SW8015M		Analyst: RPM			
TPH (Diesel Range)	0.11		0.021	0.052	mg/L	1	29-Apr-2014 23:51
Surr: 2-Fluorobiphenyl	68.9			60-135	%REC	1	29-Apr-2014 23:51
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	13-May-2014 00:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-60-0414-D
 Collection Date: 22-Apr-2014 12:35

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-38
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014		Analyst: ALR	
Arsenic	0.00796		0.00100	0.00500	mg/L	1	21-May-2014 18:34
Barium	0.0200		0.000900	0.00500	mg/L	1	21-May-2014 18:34
Chromium	U		0.00100	0.00500	mg/L	1	21-May-2014 18:34
Iron	0.136	J	0.0780	0.200	mg/L	1	21-May-2014 18:34
Lead	U		0.000700	0.00500	mg/L	1	21-May-2014 18:34
Manganese	0.334		0.00250	0.00500	mg/L	1	21-May-2014 18:34
Nickel	U		0.00100	0.00500	mg/L	1	21-May-2014 18:34
Selenium	0.00214	J	0.00100	0.00500	mg/L	1	21-May-2014 18:34
Vanadium	U		0.000900	0.00500	mg/L	1	21-May-2014 18:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: RW-10-0414
 Collection Date: 22-Apr-2014 13:15

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-39
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 17:13
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 17:13
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 17:13
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	06-May-2014 17:13
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 17:13
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 17:13
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	06-May-2014 17:13
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 17:13
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	06-May-2014 17:13
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 17:13
2-Butanone	U		0.0010	0.010	mg/L	1	06-May-2014 17:13
2-Hexanone	U		0.0010	0.010	mg/L	1	06-May-2014 17:13
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	06-May-2014 17:13
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	06-May-2014 17:13
Acetone	U		0.0020	0.010	mg/L	1	06-May-2014 17:13
Benzene	U		0.00060	0.0050	mg/L	1	06-May-2014 17:13
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	06-May-2014 17:13
Bromoform	U		0.00050	0.0050	mg/L	1	06-May-2014 17:13
Bromomethane	U		0.00050	0.0050	mg/L	1	06-May-2014 17:13
Carbon disulfide	U		0.00090	0.010	mg/L	1	06-May-2014 17:13
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	06-May-2014 17:13
Chlorobenzene	U		0.00040	0.0050	mg/L	1	06-May-2014 17:13
Chloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 17:13
Chloroform	U		0.00060	0.0050	mg/L	1	06-May-2014 17:13
Chloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 17:13
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 17:13
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 17:13
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 17:13
Ethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 17:13
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 17:13
m,p-Xylene	U		0.00060	0.010	mg/L	1	06-May-2014 17:13
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	06-May-2014 17:13
Methylene chloride	U		0.0010	0.010	mg/L	1	06-May-2014 17:13
Naphthalene	U		0.00070	0.0050	mg/L	1	06-May-2014 17:13
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	06-May-2014 17:13
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 17:13
o-Xylene	U		0.00050	0.0050	mg/L	1	06-May-2014 17:13
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 17:13
Styrene	U		0.00050	0.0050	mg/L	1	06-May-2014 17:13
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 17:13
Toluene	U		0.00050	0.0050	mg/L	1	06-May-2014 17:13
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	06-May-2014 17:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: RW-10-0414
 Collection Date: 22-Apr-2014 13:15

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-39
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 17:13
Trichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 17:13
Vinyl chloride	U		0.00040	0.0020	mg/L	1	06-May-2014 17:13
Xylenes, Total	U		0.0015	0.015	mg/L	1	06-May-2014 17:13
Surr: 1,2-Dichloroethane-d4	112			70-125	%REC	1	06-May-2014 17:13
Surr: 4-Bromofluorobenzene	99.1			72-125	%REC	1	06-May-2014 17:13
Surr: Dibromofluoromethane	107			71-125	%REC	1	06-May-2014 17:13
Surr: Toluene-d8	101			75-125	%REC	1	06-May-2014 17:13
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014		Analyst: ALR	
Arsenic	0.00174	J	0.00100	0.00500	mg/L	1	22-May-2014 06:51
Barium	0.0185		0.000900	0.00500	mg/L	1	22-May-2014 06:51
Calcium	324		0.670	5.00	mg/L	10	26-May-2014 23:04
Chromium	U		0.00100	0.00500	mg/L	1	22-May-2014 06:51
Iron	5.22		0.0500	0.200	mg/L	1	22-May-2014 06:51
Lead	U		0.000700	0.00500	mg/L	1	22-May-2014 06:51
Manganese	0.217		0.00250	0.00500	mg/L	1	22-May-2014 06:51
Potassium	5.84		0.0500	0.200	mg/L	1	22-May-2014 06:51
Selenium	0.00143	J	0.00100	0.00500	mg/L	1	22-May-2014 06:51
Sodium	227		0.500	2.00	mg/L	10	26-May-2014 23:04
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	01-May-2014 13:50
Surr: 4-Bromofluorobenzene	120			70-130	%REC	1	01-May-2014 13:50
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	3,420		5.00	10.0	mg/L	1	29-Apr-2014 19:00
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	231		10.0	25.0	mg/L	50	06-May-2014 01:43
Fluoride	2.17		0.0500	0.100	mg/L	1	06-May-2014 06:20
Sulfate	2,060		10.0	25.0	mg/L	50	06-May-2014 01:43
TPH DRO/ORO BY SW8015C		Method:SW8015M		Analyst: RPM			
TPH (Diesel Range)	0.15		0.021	0.052	mg/L	1	30-Apr-2014 00:17
Surr: 2-Fluorobiphenyl	60.8			60-135	%REC	1	30-Apr-2014 00:17
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	13-May-2014 00:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: RW-10-0414-D
 Collection Date: 22-Apr-2014 13:15

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-40
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014		Analyst: ALR	
Arsenic	0.00273	J	0.00100	0.00500	mg/L	1	21-May-2014 18:39
Barium	0.0186		0.000900	0.00500	mg/L	1	21-May-2014 18:39
Chromium	U		0.00100	0.00500	mg/L	1	21-May-2014 18:39
Iron	0.132	J	0.0780	0.200	mg/L	1	21-May-2014 18:39
Lead	U		0.000700	0.00500	mg/L	1	21-May-2014 18:39
Manganese	0.212		0.00250	0.00500	mg/L	1	21-May-2014 18:39
Selenium	0.00268	J	0.00100	0.00500	mg/L	1	21-May-2014 18:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-40-0414
 Collection Date: 22-Apr-2014 13:45

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-41
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 17:37
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 17:37
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 17:37
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	06-May-2014 17:37
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 17:37
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 17:37
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	06-May-2014 17:37
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 17:37
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	06-May-2014 17:37
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 17:37
2-Butanone	U		0.0010	0.010	mg/L	1	06-May-2014 17:37
2-Hexanone	U		0.0010	0.010	mg/L	1	06-May-2014 17:37
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	06-May-2014 17:37
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	06-May-2014 17:37
Acetone	0.0055	J	0.0020	0.010	mg/L	1	06-May-2014 17:37
Benzene	0.011		0.00060	0.0050	mg/L	1	06-May-2014 17:37
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	06-May-2014 17:37
Bromoform	U		0.00050	0.0050	mg/L	1	06-May-2014 17:37
Bromomethane	U		0.00050	0.0050	mg/L	1	06-May-2014 17:37
Carbon disulfide	U		0.00090	0.010	mg/L	1	06-May-2014 17:37
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	06-May-2014 17:37
Chlorobenzene	U		0.00040	0.0050	mg/L	1	06-May-2014 17:37
Chloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 17:37
Chloroform	U		0.00060	0.0050	mg/L	1	06-May-2014 17:37
Chloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 17:37
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 17:37
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 17:37
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 17:37
Ethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 17:37
Isopropylbenzene	0.047		0.00050	0.0050	mg/L	1	06-May-2014 17:37
m,p-Xylene	0.0056	J	0.00060	0.010	mg/L	1	06-May-2014 17:37
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	06-May-2014 17:37
Methylene chloride	U		0.0010	0.010	mg/L	1	06-May-2014 17:37
Naphthalene	0.0028	J	0.00070	0.0050	mg/L	1	06-May-2014 17:37
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	06-May-2014 17:37
n-Propylbenzene	0.0062		0.00050	0.0050	mg/L	1	06-May-2014 17:37
o-Xylene	U		0.00050	0.0050	mg/L	1	06-May-2014 17:37
sec-Butylbenzene	0.0089		0.00060	0.0050	mg/L	1	06-May-2014 17:37
Styrene	U		0.00050	0.0050	mg/L	1	06-May-2014 17:37
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 17:37
Toluene	U		0.00050	0.0050	mg/L	1	06-May-2014 17:37
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	06-May-2014 17:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-40-0414
 Collection Date: 22-Apr-2014 13:45

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-41
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 17:37
Trichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 17:37
Vinyl chloride	U		0.00040	0.0020	mg/L	1	06-May-2014 17:37
Xylenes, Total	0.0056	J	0.0015	0.015	mg/L	1	06-May-2014 17:37
Surr: 1,2-Dichloroethane-d4	111			70-125	%REC	1	06-May-2014 17:37
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	06-May-2014 17:37
Surr: Dibromofluoromethane	109			71-125	%REC	1	06-May-2014 17:37
Surr: Toluene-d8	99.4			75-125	%REC	1	06-May-2014 17:37
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014		Analyst: ALR	
Arsenic	0.00157	J	0.00100	0.00500	mg/L	1	22-May-2014 06:56
Barium	0.0278		0.000900	0.00500	mg/L	1	22-May-2014 06:56
Calcium	386		0.670	5.00	mg/L	10	26-May-2014 23:09
Chromium	U		0.00100	0.00500	mg/L	1	22-May-2014 06:56
Iron	U		0.0500	0.200	mg/L	1	22-May-2014 06:56
Lead	U		0.000700	0.00500	mg/L	1	22-May-2014 06:56
Manganese	0.0451		0.00250	0.00500	mg/L	1	22-May-2014 06:56
Potassium	1.56		0.0500	0.200	mg/L	1	22-May-2014 06:56
Selenium	0.00202	J	0.00100	0.00500	mg/L	1	22-May-2014 06:56
Sodium	124		0.0500	0.200	mg/L	1	22-May-2014 06:56
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	1.01		0.0100	0.0500	mg/L	1	01-May-2014 17:31
Surr: 4-Bromofluorobenzene	126			70-130	%REC	1	01-May-2014 17:31
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	2,700		5.00	10.0	mg/L	1	29-Apr-2014 19:00
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	179		10.0	25.0	mg/L	50	06-May-2014 02:27
Fluoride	1.28		0.0500	0.100	mg/L	1	06-May-2014 06:34
Sulfate	1,340		10.0	25.0	mg/L	50	06-May-2014 02:27
TPH DRO/ORO BY SW8015C		Method:SW8015M		Analyst: RPM			
TPH (Diesel Range)	0.88		0.021	0.052	mg/L	1	30-Apr-2014 00:44
Surr: 2-Fluorobiphenyl	61.0			60-135	%REC	1	30-Apr-2014 00:44
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	13-May-2014 02:06

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-40-0414-D
Collection Date: 22-Apr-2014 13:45

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-42
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014		Analyst: ALR	
Arsenic	0.00257	J	0.00100	0.00500	mg/L	1	21-May-2014 18:43
Barium	0.0271		0.000900	0.00500	mg/L	1	21-May-2014 18:43
Chromium	U		0.00100	0.00500	mg/L	1	21-May-2014 18:43
Iron	U		0.0780	0.200	mg/L	1	21-May-2014 18:43
Lead	U		0.000700	0.00500	mg/L	1	21-May-2014 18:43
Manganese	0.0424		0.00250	0.00500	mg/L	1	21-May-2014 18:43
Selenium	0.00270	J	0.00100	0.00500	mg/L	1	21-May-2014 18:43

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-41-0414
 Collection Date: 22-Apr-2014 14:15

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-43
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 18:02
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 18:02
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 18:02
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	06-May-2014 18:02
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 18:02
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 18:02
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	06-May-2014 18:02
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 18:02
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	06-May-2014 18:02
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 18:02
2-Butanone	U		0.0010	0.010	mg/L	1	06-May-2014 18:02
2-Hexanone	U		0.0010	0.010	mg/L	1	06-May-2014 18:02
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	06-May-2014 18:02
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	06-May-2014 18:02
Acetone	0.0049	J	0.0020	0.010	mg/L	1	06-May-2014 18:02
Benzene	0.018		0.00060	0.0050	mg/L	1	06-May-2014 18:02
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	06-May-2014 18:02
Bromoform	U		0.00050	0.0050	mg/L	1	06-May-2014 18:02
Bromomethane	U		0.00050	0.0050	mg/L	1	06-May-2014 18:02
Carbon disulfide	U		0.00090	0.010	mg/L	1	06-May-2014 18:02
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	06-May-2014 18:02
Chlorobenzene	U		0.00040	0.0050	mg/L	1	06-May-2014 18:02
Chloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 18:02
Chloroform	U		0.00060	0.0050	mg/L	1	06-May-2014 18:02
Chloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 18:02
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 18:02
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 18:02
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 18:02
Ethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 18:02
Isopropylbenzene	0.014		0.00050	0.0050	mg/L	1	06-May-2014 18:02
m,p-Xylene	U		0.00060	0.010	mg/L	1	06-May-2014 18:02
Methyl tert-butyl ether	0.0036	J	0.00060	0.0050	mg/L	1	06-May-2014 18:02
Methylene chloride	U		0.0010	0.010	mg/L	1	06-May-2014 18:02
Naphthalene	0.0026	J	0.00070	0.0050	mg/L	1	06-May-2014 18:02
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	06-May-2014 18:02
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 18:02
o-Xylene	U		0.00050	0.0050	mg/L	1	06-May-2014 18:02
sec-Butylbenzene	0.0044	J	0.00060	0.0050	mg/L	1	06-May-2014 18:02
Styrene	U		0.00050	0.0050	mg/L	1	06-May-2014 18:02
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 18:02
Toluene	U		0.00050	0.0050	mg/L	1	06-May-2014 18:02
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	06-May-2014 18:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-41-0414
 Collection Date: 22-Apr-2014 14:15

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-43
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 18:02
Trichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 18:02
Vinyl chloride	U		0.00040	0.0020	mg/L	1	06-May-2014 18:02
Xylenes, Total	U		0.0015	0.015	mg/L	1	06-May-2014 18:02
Surr: 1,2-Dichloroethane-d4	114			70-125	%REC	1	06-May-2014 18:02
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	06-May-2014 18:02
Surr: Dibromofluoromethane	105			71-125	%REC	1	06-May-2014 18:02
Surr: Toluene-d8	102			75-125	%REC	1	06-May-2014 18:02
ICP-MS METALS BY SW6020A		Method:SW6020				Prep:SW3010A / 07-May-2014 Analyst: ALR	
Arsenic	0.00475	J	0.00100	0.00500	mg/L	1	22-May-2014 07:01
Barium	0.0140		0.000900	0.00500	mg/L	1	22-May-2014 07:01
Calcium	242		0.670	5.00	mg/L	10	26-May-2014 23:13
Chromium	U		0.00100	0.00500	mg/L	1	22-May-2014 07:01
Iron	0.0729	J	0.0500	0.200	mg/L	1	22-May-2014 07:01
Lead	U		0.000700	0.00500	mg/L	1	22-May-2014 07:01
Manganese	0.854		0.00250	0.00500	mg/L	1	22-May-2014 07:01
Potassium	0.444		0.0500	0.200	mg/L	1	22-May-2014 07:01
Selenium	0.00163	J	0.00100	0.00500	mg/L	1	22-May-2014 07:01
Sodium	387		0.500	2.00	mg/L	10	26-May-2014 23:13
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: DNR	
Gasoline Range Organics	0.233		0.0100	0.0500	mg/L	1	01-May-2014 17:49
Surr: 4-Bromofluorobenzene	122			70-130	%REC	1	01-May-2014 17:49
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	3,760		5.00	10.0	mg/L	1	29-Apr-2014 19:00
ANIONS BY E300.0		Method:E300				Analyst: JKP	
Chloride	275		10.0	25.0	mg/L	50	06-May-2014 02:42
Fluoride	0.747		0.0500	0.100	mg/L	1	06-May-2014 07:33
Sulfate	1,450		10.0	25.0	mg/L	50	06-May-2014 02:42
TPH DRO/ORO BY SW8015C		Method:SW8015M				Analyst: RPM	
TPH (Diesel Range)	0.30		0.021	0.052	mg/L	1	30-Apr-2014 02:03
Surr: 2-Fluorobiphenyl	61.3			60-135	%REC	1	30-Apr-2014 02:03
NITRATE/NITRITE BY E300.0		Method:E300				Analyst: JKP	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	13-May-2014 02:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-41-0414-D
Collection Date: 22-Apr-2014 14:15

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-44
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014		Analyst: ALR	
Arsenic	0.00640		0.00100	0.00500	mg/L	1	21-May-2014 18:48
Barium	0.0141		0.000900	0.00500	mg/L	1	21-May-2014 18:48
Chromium	U		0.00100	0.00500	mg/L	1	21-May-2014 18:48
Iron	U		0.0780	0.200	mg/L	1	21-May-2014 18:48
Lead	U		0.000700	0.00500	mg/L	1	21-May-2014 18:48
Manganese	0.847		0.00250	0.00500	mg/L	1	21-May-2014 18:48
Selenium	0.00316	J	0.00100	0.00500	mg/L	1	21-May-2014 18:48

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: RW-9-0414
 Collection Date: 22-Apr-2014 14:40

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-45
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 20:37
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 20:37
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 20:37
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	02-May-2014 20:37
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	02-May-2014 20:37
1,2,4-Trimethylbenzene	0.0065		0.00050	0.0050	mg/L	1	02-May-2014 20:37
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	02-May-2014 20:37
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 20:37
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	02-May-2014 20:37
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	02-May-2014 20:37
2-Butanone	U		0.0010	0.010	mg/L	1	02-May-2014 20:37
2-Hexanone	U		0.0010	0.010	mg/L	1	02-May-2014 20:37
4-Isopropyltoluene	0.0013	J	0.00050	0.0050	mg/L	1	02-May-2014 20:37
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	02-May-2014 20:37
Acetone	U		0.0020	0.010	mg/L	1	02-May-2014 20:37
Benzene	0.68		0.0060	0.050	mg/L	10	02-May-2014 19:56
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	02-May-2014 20:37
Bromoform	U		0.00050	0.0050	mg/L	1	02-May-2014 20:37
Bromomethane	U		0.00050	0.0050	mg/L	1	02-May-2014 20:37
Carbon disulfide	0.0015	J	0.00090	0.010	mg/L	1	02-May-2014 20:37
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	02-May-2014 20:37
Chlorobenzene	U		0.00040	0.0050	mg/L	1	02-May-2014 20:37
Chloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 20:37
Chloroform	U		0.00060	0.0050	mg/L	1	02-May-2014 20:37
Chloromethane	U		0.00050	0.0050	mg/L	1	02-May-2014 20:37
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	02-May-2014 20:37
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	02-May-2014 20:37
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	02-May-2014 20:37
Ethylbenzene	0.0015	J	0.00050	0.0050	mg/L	1	02-May-2014 20:37
Isopropylbenzene	0.10		0.00050	0.0050	mg/L	1	02-May-2014 20:37
m,p-Xylene	0.024		0.00060	0.010	mg/L	1	02-May-2014 20:37
Methyl tert-butyl ether	0.0034	J	0.00060	0.0050	mg/L	1	02-May-2014 20:37
Methylene chloride	U		0.0010	0.010	mg/L	1	02-May-2014 20:37
Naphthalene	0.0075		0.00070	0.0050	mg/L	1	02-May-2014 20:37
n-Butylbenzene	0.0099		0.0010	0.0050	mg/L	1	02-May-2014 20:37
n-Propylbenzene	0.035		0.00050	0.0050	mg/L	1	02-May-2014 20:37
o-Xylene	U		0.00050	0.0050	mg/L	1	02-May-2014 20:37
sec-Butylbenzene	0.024		0.00060	0.0050	mg/L	1	02-May-2014 20:37
Styrene	U		0.00050	0.0050	mg/L	1	02-May-2014 20:37
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	02-May-2014 20:37
Toluene	0.0019	J	0.00050	0.0050	mg/L	1	02-May-2014 20:37
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	02-May-2014 20:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: RW-9-0414
 Collection Date: 22-Apr-2014 14:40

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-45
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	02-May-2014 20:37
Trichloroethene	U		0.00050	0.0050	mg/L	1	02-May-2014 20:37
Vinyl chloride	U		0.00040	0.0020	mg/L	1	02-May-2014 20:37
Xylenes, Total	0.024		0.0015	0.015	mg/L	1	02-May-2014 20:37
Surr: 1,2-Dichloroethane-d4	103			70-125	%REC	1	02-May-2014 20:37
Surr: 1,2-Dichloroethane-d4	86.6			70-125	%REC	10	02-May-2014 19:56
Surr: 4-Bromofluorobenzene	104			72-125	%REC	1	02-May-2014 20:37
Surr: 4-Bromofluorobenzene	93.2			72-125	%REC	10	02-May-2014 19:56
Surr: Dibromofluoromethane	103			71-125	%REC	1	02-May-2014 20:37
Surr: Dibromofluoromethane	88.9			71-125	%REC	10	02-May-2014 19:56
Surr: Toluene-d8	96.2			75-125	%REC	1	02-May-2014 20:37
Surr: Toluene-d8	94.5			75-125	%REC	10	02-May-2014 19:56
ICP-MS METALS BY SW6020A			Method:SW6020			Prep:SW3010A / 07-May-2014 Analyst: ALR	
Arsenic	0.00434	J	0.00100	0.00500	mg/L	1	22-May-2014 07:06
Barium	0.0470		0.000900	0.00500	mg/L	1	22-May-2014 07:06
Calcium	291		0.670	5.00	mg/L	10	26-May-2014 23:17
Chromium	U		0.00100	0.00500	mg/L	1	22-May-2014 07:06
Iron	0.942		0.0500	0.200	mg/L	1	22-May-2014 07:06
Lead	U		0.000700	0.00500	mg/L	1	22-May-2014 07:06
Manganese	0.417		0.00250	0.00500	mg/L	1	22-May-2014 07:06
Potassium	1.57		0.0500	0.200	mg/L	1	22-May-2014 07:06
Selenium	0.00250	J	0.00100	0.00500	mg/L	1	22-May-2014 07:06
Sodium	306		0.500	2.00	mg/L	10	26-May-2014 23:17
GASOLINE RANGE ORGANICS BY SW8015C			Method:SW8015			Analyst: DNR	
Gasoline Range Organics	3.26		0.0100	0.0500	mg/L	1	01-May-2014 18:07
Surr: 4-Bromofluorobenzene	119			70-130	%REC	1	01-May-2014 18:07
TOTAL DISSOLVED SOLIDS BY SM2540C			Method:M2540C			Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	3,380		5.00	10.0	mg/L	1	29-Apr-2014 19:00
ANIONS BY E300.0			Method:E300			Analyst: JKP	
Chloride	318		10.0	25.0	mg/L	50	06-May-2014 02:56
Fluoride	1.10		0.0500	0.100	mg/L	1	06-May-2014 07:47
Sulfate	1,260		10.0	25.0	mg/L	50	06-May-2014 02:56
TPH DRO/ORO BY SW8015C			Method:SW8015M			Analyst: RPM	
TPH (Diesel Range)	0.48		0.021	0.052	mg/L	1	30-Apr-2014 02:30
Surr: 2-Fluorobiphenyl	60.2			60-135	%REC	1	30-Apr-2014 02:30
NITRATE/NITRITE BY E300.0			Method:E300			Analyst: JKP	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	13-May-2014 02:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: RW-9-0414-D
Collection Date: 22-Apr-2014 14:40

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-46
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014		Analyst: ALR	
Arsenic	0.00610		0.00100	0.00500	mg/L	1	21-May-2014 18:52
Barium	0.0494		0.000900	0.00500	mg/L	1	21-May-2014 18:52
Chromium	U		0.00100	0.00500	mg/L	1	21-May-2014 18:52
Iron	U		0.0780	0.200	mg/L	1	21-May-2014 18:52
Lead	U		0.000700	0.00500	mg/L	1	21-May-2014 18:52
Manganese	0.404		0.00250	0.00500	mg/L	1	21-May-2014 18:52
Selenium	0.00393	J	0.00100	0.00500	mg/L	1	21-May-2014 18:52

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-42-0414
 Collection Date: 22-Apr-2014 15:10

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-47
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 21:01
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 21:01
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 21:01
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	02-May-2014 21:01
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	02-May-2014 21:01
1,2,4-Trimethylbenzene	0.063		0.00050	0.0050	mg/L	1	02-May-2014 21:01
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	02-May-2014 21:01
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 21:01
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	02-May-2014 21:01
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	02-May-2014 21:01
2-Butanone	U		0.0010	0.010	mg/L	1	02-May-2014 21:01
2-Hexanone	U		0.0010	0.010	mg/L	1	02-May-2014 21:01
4-Isopropyltoluene	0.0011	J	0.00050	0.0050	mg/L	1	02-May-2014 21:01
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	02-May-2014 21:01
Acetone	U		0.0020	0.010	mg/L	1	02-May-2014 21:01
Benzene	0.54		0.0060	0.050	mg/L	10	02-May-2014 20:19
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	02-May-2014 21:01
Bromoform	U		0.00050	0.0050	mg/L	1	02-May-2014 21:01
Bromomethane	U		0.00050	0.0050	mg/L	1	02-May-2014 21:01
Carbon disulfide	0.0013	J	0.00090	0.010	mg/L	1	02-May-2014 21:01
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	02-May-2014 21:01
Chlorobenzene	U		0.00040	0.0050	mg/L	1	02-May-2014 21:01
Chloroethane	U		0.00050	0.0050	mg/L	1	02-May-2014 21:01
Chloroform	U		0.00060	0.0050	mg/L	1	02-May-2014 21:01
Chloromethane	U		0.00050	0.0050	mg/L	1	02-May-2014 21:01
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	02-May-2014 21:01
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	02-May-2014 21:01
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	02-May-2014 21:01
Ethylbenzene	0.0030	J	0.00050	0.0050	mg/L	1	02-May-2014 21:01
Isopropylbenzene	0.039		0.00050	0.0050	mg/L	1	02-May-2014 21:01
m,p-Xylene	0.11		0.00060	0.010	mg/L	1	02-May-2014 21:01
Methyl tert-butyl ether	0.022		0.00060	0.0050	mg/L	1	02-May-2014 21:01
Methylene chloride	U		0.0010	0.010	mg/L	1	02-May-2014 21:01
Naphthalene	0.0043	J	0.00070	0.0050	mg/L	1	02-May-2014 21:01
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	02-May-2014 21:01
n-Propylbenzene	0.033		0.00050	0.0050	mg/L	1	02-May-2014 21:01
o-Xylene	0.0011	J	0.00050	0.0050	mg/L	1	02-May-2014 21:01
sec-Butylbenzene	0.0079		0.00060	0.0050	mg/L	1	02-May-2014 21:01
Styrene	U		0.00050	0.0050	mg/L	1	02-May-2014 21:01
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	02-May-2014 21:01
Toluene	0.0023	J	0.00050	0.0050	mg/L	1	02-May-2014 21:01
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	02-May-2014 21:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-42-0414
 Collection Date: 22-Apr-2014 15:10

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-47
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	02-May-2014 21:01
Trichloroethene	U		0.00050	0.0050	mg/L	1	02-May-2014 21:01
Vinyl chloride	U		0.00040	0.0020	mg/L	1	02-May-2014 21:01
Xylenes, Total	0.11		0.0015	0.015	mg/L	1	02-May-2014 21:01
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	02-May-2014 21:01
Surr: 1,2-Dichloroethane-d4	91.3			70-125	%REC	10	02-May-2014 20:19
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	02-May-2014 21:01
Surr: 4-Bromofluorobenzene	97.3			72-125	%REC	10	02-May-2014 20:19
Surr: Dibromofluoromethane	102			71-125	%REC	1	02-May-2014 21:01
Surr: Dibromofluoromethane	93.3			71-125	%REC	10	02-May-2014 20:19
Surr: Toluene-d8	95.7			75-125	%REC	1	02-May-2014 21:01
Surr: Toluene-d8	99.3			75-125	%REC	10	02-May-2014 20:19
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014		Analyst: ALR	
Arsenic	0.0120		0.00100	0.00500	mg/L	1	22-May-2014 07:10
Barium	0.0284		0.000900	0.00500	mg/L	1	22-May-2014 07:10
Calcium	248		0.670	5.00	mg/L	10	26-May-2014 23:22
Chromium	U		0.00100	0.00500	mg/L	1	22-May-2014 07:10
Iron	0.527		0.0500	0.200	mg/L	1	22-May-2014 07:10
Lead	0.000766	J	0.000700	0.00500	mg/L	1	22-May-2014 07:10
Manganese	0.189		0.00250	0.00500	mg/L	1	22-May-2014 07:10
Potassium	0.560		0.0500	0.200	mg/L	1	22-May-2014 07:10
Selenium	0.00168	J	0.00100	0.00500	mg/L	1	22-May-2014 07:10
Sodium	508		0.500	2.00	mg/L	10	26-May-2014 23:22
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	2.90		0.0100	0.0500	mg/L	1	01-May-2014 18:25
Surr: 4-Bromofluorobenzene	119			70-130	%REC	1	01-May-2014 18:25
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	3,440		5.00	10.0	mg/L	1	29-Apr-2014 19:00
ANIONS BY E300.0		Method:E300		Analyst: JKP			
Chloride	914		10.0	25.0	mg/L	50	06-May-2014 03:11
Fluoride	0.545		0.0500	0.100	mg/L	1	06-May-2014 08:02
Sulfate	954		10.0	25.0	mg/L	50	06-May-2014 03:11
TPH DRO/ORO BY SW8015C		Method:SW8015M		Analyst: RPM			
TPH (Diesel Range)	1.4		0.021	0.052	mg/L	1	30-Apr-2014 02:56
Surr: 2-Fluorobiphenyl	68.1			60-135	%REC	1	30-Apr-2014 02:56
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	13-May-2014 02:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-42-0414-D
Collection Date: 22-Apr-2014 15:10

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-48
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 07-May-2014		Analyst: ALR	
Arsenic	0.0135		0.00100	0.00500	mg/L	1	21-May-2014 18:56
Barium	0.0270		0.000900	0.00500	mg/L	1	21-May-2014 18:56
Chromium	U		0.00100	0.00500	mg/L	1	21-May-2014 18:56
Iron	0.332		0.0780	0.200	mg/L	1	21-May-2014 18:56
Lead	U		0.000700	0.00500	mg/L	1	21-May-2014 18:56
Manganese	0.189		0.00250	0.00500	mg/L	1	21-May-2014 18:56
Selenium	0.00429	J	0.00100	0.00500	mg/L	1	21-May-2014 18:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: TB-032714-32
 Collection Date: 23-Apr-2014 15:00

ANALYTICAL REPORT

WorkOrder:HS14041068
 Lab ID:HS14041068-49
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 18:26
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 18:26
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 18:26
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	06-May-2014 18:26
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 18:26
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 18:26
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	06-May-2014 18:26
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 18:26
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	06-May-2014 18:26
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 18:26
2-Butanone	U		0.0010	0.010	mg/L	1	06-May-2014 18:26
2-Hexanone	U		0.0010	0.010	mg/L	1	06-May-2014 18:26
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	06-May-2014 18:26
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	06-May-2014 18:26
Acetone	U		0.0020	0.010	mg/L	1	06-May-2014 18:26
Benzene	U		0.00060	0.0050	mg/L	1	06-May-2014 18:26
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	06-May-2014 18:26
Bromoform	U		0.00050	0.0050	mg/L	1	06-May-2014 18:26
Bromomethane	U		0.00050	0.0050	mg/L	1	06-May-2014 18:26
Carbon disulfide	U		0.00090	0.010	mg/L	1	06-May-2014 18:26
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	06-May-2014 18:26
Chlorobenzene	U		0.00040	0.0050	mg/L	1	06-May-2014 18:26
Chloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 18:26
Chloroform	U		0.00060	0.0050	mg/L	1	06-May-2014 18:26
Chloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 18:26
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 18:26
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 18:26
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 18:26
Ethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 18:26
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 18:26
m,p-Xylene	U		0.00060	0.010	mg/L	1	06-May-2014 18:26
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	06-May-2014 18:26
Methylene chloride	U		0.0010	0.010	mg/L	1	06-May-2014 18:26
Naphthalene	U		0.00070	0.0050	mg/L	1	06-May-2014 18:26
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	06-May-2014 18:26
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 18:26
o-Xylene	U		0.00050	0.0050	mg/L	1	06-May-2014 18:26
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 18:26
Styrene	U		0.00050	0.0050	mg/L	1	06-May-2014 18:26
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 18:26
Toluene	U		0.00050	0.0050	mg/L	1	06-May-2014 18:26
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	06-May-2014 18:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: TB-032714-32
Collection Date: 23-Apr-2014 15:00

ANALYTICAL REPORT

WorkOrder:HS14041068
Lab ID:HS14041068-49
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 18:26
Trichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 18:26
Vinyl chloride	U		0.00040	0.0020	mg/L	1	06-May-2014 18:26
Xylenes, Total	U		0.0015	0.015	mg/L	1	06-May-2014 18:26
Surr: 1,2-Dichloroethane-d4	112			70-125	%REC	1	06-May-2014 18:26
Surr: 4-Bromofluorobenzene	98.8			72-125	%REC	1	06-May-2014 18:26
Surr: Dibromofluoromethane	107			71-125	%REC	1	06-May-2014 18:26
Surr: Toluene-d8	100			75-125	%REC	1	06-May-2014 18:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
WorkOrder: HS14041068

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 81274	Test Name : TPH DRO/ORO BY SW8015C			Matrix: Water		
HS14041068-01	MW-50-0414	21 Apr 2014 11:00		28 Apr 2014 09:00	29 Apr 2014 12:46	1
HS14041068-03	MW-91-0414	21 Apr 2014 12:00		28 Apr 2014 09:00	29 Apr 2014 13:12	1
HS14041068-05	MW-90-0414	21 Apr 2014 12:30		28 Apr 2014 09:00	29 Apr 2014 13:39	1
HS14041068-07	MW-96-0414	21 Apr 2014 13:05		28 Apr 2014 09:00	29 Apr 2014 14:59	1
HS14041068-09	MW-95-0414	21 Apr 2014 13:40		28 Apr 2014 09:00	29 Apr 2014 15:26	1
HS14041068-11	RW-17-0414	21 Apr 2014 14:10		28 Apr 2014 09:00	29 Apr 2014 15:52	1
HS14041068-13	RW-16-0414	21 Apr 2014 14:40		28 Apr 2014 09:00	29 Apr 2014 16:19	1
HS14041068-15	Dup-10-0414	21 Apr 2014 00:00		28 Apr 2014 09:00	29 Apr 2014 16:46	1
HS14041068-17	EB-14-0414	21 Apr 2014 15:10		28 Apr 2014 09:00	29 Apr 2014 17:13	1
HS14041068-19	MW-93-0414	22 Apr 2014 08:10		28 Apr 2014 09:00	30 Apr 2014 10:45	5
HS14041068-21	MW-43-0414	22 Apr 2014 08:55		28 Apr 2014 09:00	29 Apr 2014 18:07	1
HS14041068-23	EB-15-0414	22 Apr 2014 09:10		28 Apr 2014 09:00	29 Apr 2014 18:33	1
HS14041068-25	MW-23-0414	22 Apr 2014 09:35		28 Apr 2014 09:00	29 Apr 2014 19:00	1
HS14041068-27	MW-62-0414	22 Apr 2014 10:10		28 Apr 2014 09:00	29 Apr 2014 20:19	1
HS14041068-29	MW-106-0414	22 Apr 2014 10:45		28 Apr 2014 09:00	29 Apr 2014 20:46	1
HS14041068-31	MW-98-0414	22 Apr 2014 11:20		28 Apr 2014 09:00	29 Apr 2014 21:12	1
Batch ID 81347B	Test Name : TPH DRO/ORO BY SW8015C			Matrix: Water		
HS14041068-33	Dup-11-0414	22 Apr 2014 00:00		29 Apr 2014 09:45	29 Apr 2014 22:58	1
HS14041068-35	MW-59-0414	22 Apr 2014 12:00		29 Apr 2014 09:45	29 Apr 2014 23:25	1
HS14041068-37	MW-60-0414	22 Apr 2014 12:35		29 Apr 2014 09:45	29 Apr 2014 23:51	1
HS14041068-39	RW-10-0414	22 Apr 2014 13:15		29 Apr 2014 09:45	30 Apr 2014 00:17	1
HS14041068-41	MW-40-0414	22 Apr 2014 13:45		29 Apr 2014 09:45	30 Apr 2014 00:44	1
HS14041068-43	MW-41-0414	22 Apr 2014 14:15		29 Apr 2014 09:45	30 Apr 2014 02:03	1
HS14041068-45	RW-9-0414	22 Apr 2014 14:40		29 Apr 2014 09:45	30 Apr 2014 02:30	1
HS14041068-47	MW-42-0414	22 Apr 2014 15:10		29 Apr 2014 09:45	30 Apr 2014 02:56	1
Batch ID 81635	Test Name : DISSOLVED METALS BY SW6020A			Matrix: Water		
HS14041068-02	MW-50-0414-D	21 Apr 2014 11:00		06 May 2014 10:00	15 May 2014 01:31	1
HS14041068-04	MW-91-0414-D	21 Apr 2014 12:00		06 May 2014 10:00	15 May 2014 01:35	1
HS14041068-06	MW-90-0414-D	21 Apr 2014 12:30		06 May 2014 10:00	15 May 2014 02:50	1
HS14041068-08	MW-96-0414-D	21 Apr 2014 13:05		06 May 2014 10:00	15 May 2014 02:54	1
HS14041068-10	MW-95-0414-D	21 Apr 2014 13:40		06 May 2014 10:00	15 May 2014 02:59	1
HS14041068-12	RW-17-0414-D	21 Apr 2014 14:10		06 May 2014 10:00	13 May 2014 22:09	2
HS14041068-14	RW-16-0414-D	21 Apr 2014 14:40		06 May 2014 10:00	15 May 2014 03:03	1
HS14041068-16	Dup-10-0414-D	21 Apr 2014 00:00		06 May 2014 10:00	15 May 2014 03:08	1

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
WorkOrder: HS14041068

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 81637 Test Name : DISSOLVED METALS BY SW6020A Matrix: Water						
HS14041068-18	EB-14-0414-D	21 Apr 2014 15:10		06 May 2014 10:08	21 May 2014 16:26	1
HS14041068-20	MW-93-0414-D	22 Apr 2014 08:10		06 May 2014 10:08	21 May 2014 16:28	1
HS14041068-22	MW-43-0414-D	22 Apr 2014 08:55		06 May 2014 10:08	21 May 2014 16:31	1
HS14041068-24	EB-15-0414-D	22 Apr 2014 09:10		06 May 2014 10:08	21 May 2014 16:38	1
Batch ID 81696 Test Name : DISSOLVED METALS BY SW6020A Matrix: Water						
HS14041068-26	MW-23-0414-D	22 Apr 2014 09:35		07 May 2014 10:00	22 May 2014 15:35	100
HS14041068-26	MW-23-0414-D	22 Apr 2014 09:35		07 May 2014 10:00	21 May 2014 17:59	1
HS14041068-28	MW-62-0414-D	22 Apr 2014 10:10		07 May 2014 10:00	22 May 2014 15:39	1
HS14041068-28	MW-62-0414-D	22 Apr 2014 10:10		07 May 2014 10:00	21 May 2014 18:04	1
HS14041068-30	MW-106-0414-D	22 Apr 2014 10:45		07 May 2014 10:00	22 May 2014 15:43	1
HS14041068-30	MW-106-0414-D	22 Apr 2014 10:45		07 May 2014 10:00	21 May 2014 18:08	1
HS14041068-32	MW-98-0414-D	22 Apr 2014 11:20		07 May 2014 10:00	21 May 2014 18:12	1
HS14041068-34	Dup-11-0414-D	22 Apr 2014 00:00		07 May 2014 10:00	21 May 2014 18:17	1
HS14041068-36	MW-59-0414-D	22 Apr 2014 12:00		07 May 2014 10:00	21 May 2014 18:21	1
HS14041068-38	MW-60-0414-D	22 Apr 2014 12:35		07 May 2014 10:00	21 May 2014 18:34	1
HS14041068-40	RW-10-0414-D	22 Apr 2014 13:15		07 May 2014 10:00	21 May 2014 18:39	1
HS14041068-42	MW-40-0414-D	22 Apr 2014 13:45		07 May 2014 10:00	21 May 2014 18:43	1
HS14041068-44	MW-41-0414-D	22 Apr 2014 14:15		07 May 2014 10:00	21 May 2014 18:48	1
HS14041068-46	RW-9-0414-D	22 Apr 2014 14:40		07 May 2014 10:00	21 May 2014 18:52	1
HS14041068-48	MW-42-0414-D	22 Apr 2014 15:10		07 May 2014 10:00	21 May 2014 18:56	1

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
WorkOrder: HS14041068

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 81698	Test Name : ICP-MS METALS BY SW6020A			Matrix: Water		
HS14041068-01	MW-50-0414	21 Apr 2014 11:00		07 May 2014 10:06	15 May 2014 15:11	10
HS14041068-01	MW-50-0414	21 Apr 2014 11:00		07 May 2014 10:06	14 May 2014 18:42	1
HS14041068-03	MW-91-0414	21 Apr 2014 12:00		07 May 2014 10:06	15 May 2014 15:13	10
HS14041068-03	MW-91-0414	21 Apr 2014 12:00		07 May 2014 10:06	14 May 2014 18:45	1
HS14041068-05	MW-90-0414	21 Apr 2014 12:30		07 May 2014 10:06	15 May 2014 15:15	10
HS14041068-05	MW-90-0414	21 Apr 2014 12:30		07 May 2014 10:06	14 May 2014 18:52	1
HS14041068-07	MW-96-0414	21 Apr 2014 13:05		07 May 2014 10:06	15 May 2014 15:18	10
HS14041068-07	MW-96-0414	21 Apr 2014 13:05		07 May 2014 10:06	14 May 2014 18:55	1
HS14041068-09	MW-95-0414	21 Apr 2014 13:40		07 May 2014 10:06	15 May 2014 15:20	10
HS14041068-09	MW-95-0414	21 Apr 2014 13:40		07 May 2014 10:06	14 May 2014 18:58	1
HS14041068-11	RW-17-0414	21 Apr 2014 14:10		07 May 2014 10:06	15 May 2014 15:23	10
HS14041068-11	RW-17-0414	21 Apr 2014 14:10		07 May 2014 10:06	14 May 2014 19:00	1
HS14041068-13	RW-16-0414	21 Apr 2014 14:40		07 May 2014 10:06	15 May 2014 15:25	10
HS14041068-13	RW-16-0414	21 Apr 2014 14:40		07 May 2014 10:06	14 May 2014 19:03	1
HS14041068-15	Dup-10-0414	21 Apr 2014 00:00		07 May 2014 10:06	15 May 2014 15:28	10
HS14041068-15	Dup-10-0414	21 Apr 2014 00:00		07 May 2014 10:06	14 May 2014 19:06	1
HS14041068-17	EB-14-0414	21 Apr 2014 15:10		07 May 2014 10:06	15 May 2014 15:30	1
HS14041068-17	EB-14-0414	21 Apr 2014 15:10		07 May 2014 10:06	14 May 2014 19:09	1
HS14041068-19	MW-93-0414	22 Apr 2014 08:10		07 May 2014 10:06	15 May 2014 15:37	10
HS14041068-19	MW-93-0414	22 Apr 2014 08:10		07 May 2014 10:06	14 May 2014 19:11	1
HS14041068-21	MW-43-0414	22 Apr 2014 08:55		07 May 2014 10:06	15 May 2014 15:40	10
HS14041068-21	MW-43-0414	22 Apr 2014 08:55		07 May 2014 10:06	14 May 2014 19:14	1

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
WorkOrder: HS14041068

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 81701	Test Name : ICP-MS METALS BY SW6020A			Matrix: Water		
HS14041068-23	EB-15-0414	22 Apr 2014 09:10		07 May 2014 10:34	26 May 2014 20:44	1
HS14041068-25	MW-23-0414	22 Apr 2014 09:35		07 May 2014 10:34	27 May 2014 00:46	1
HS14041068-25	MW-23-0414	22 Apr 2014 09:35		07 May 2014 10:34	26 May 2014 20:48	10
HS14041068-27	MW-62-0414	22 Apr 2014 10:10		07 May 2014 10:34	27 May 2014 16:21	10
HS14041068-27	MW-62-0414	22 Apr 2014 10:10		07 May 2014 10:34	27 May 2014 00:50	1
HS14041068-27	MW-62-0414	22 Apr 2014 10:10		07 May 2014 10:34	26 May 2014 21:14	10
HS14041068-29	MW-106-0414	22 Apr 2014 10:45		07 May 2014 10:34	27 May 2014 16:27	10
HS14041068-29	MW-106-0414	22 Apr 2014 10:45		07 May 2014 10:34	27 May 2014 00:55	1
HS14041068-29	MW-106-0414	22 Apr 2014 10:45		07 May 2014 10:34	26 May 2014 21:19	10
HS14041068-31	MW-98-0414	22 Apr 2014 11:20		07 May 2014 10:34	27 May 2014 16:32	10
HS14041068-31	MW-98-0414	22 Apr 2014 11:20		07 May 2014 10:34	27 May 2014 00:59	1
HS14041068-31	MW-98-0414	22 Apr 2014 11:20		07 May 2014 10:34	26 May 2014 21:23	10
HS14041068-33	Dup-11-0414	22 Apr 2014 00:00		07 May 2014 10:34	27 May 2014 16:36	10
HS14041068-33	Dup-11-0414	22 Apr 2014 00:00		07 May 2014 10:34	27 May 2014 01:04	1
HS14041068-33	Dup-11-0414	22 Apr 2014 00:00		07 May 2014 10:34	26 May 2014 21:27	10
HS14041068-35	MW-59-0414	22 Apr 2014 12:00		07 May 2014 10:34	27 May 2014 01:08	1
HS14041068-35	MW-59-0414	22 Apr 2014 12:00		07 May 2014 10:34	26 May 2014 22:55	10
HS14041068-37	MW-60-0414	22 Apr 2014 12:35		07 May 2014 10:34	26 May 2014 23:00	10
HS14041068-37	MW-60-0414	22 Apr 2014 12:35		07 May 2014 10:34	22 May 2014 06:46	1
HS14041068-39	RW-10-0414	22 Apr 2014 13:15		07 May 2014 10:34	26 May 2014 23:04	10
HS14041068-39	RW-10-0414	22 Apr 2014 13:15		07 May 2014 10:34	22 May 2014 06:51	1
HS14041068-41	MW-40-0414	22 Apr 2014 13:45		07 May 2014 10:34	26 May 2014 23:09	10
HS14041068-41	MW-40-0414	22 Apr 2014 13:45		07 May 2014 10:34	22 May 2014 06:56	1
HS14041068-43	MW-41-0414	22 Apr 2014 14:15		07 May 2014 10:34	26 May 2014 23:13	10
HS14041068-43	MW-41-0414	22 Apr 2014 14:15		07 May 2014 10:34	22 May 2014 07:01	1
HS14041068-45	RW-9-0414	22 Apr 2014 14:40		07 May 2014 10:34	26 May 2014 23:17	10
HS14041068-45	RW-9-0414	22 Apr 2014 14:40		07 May 2014 10:34	22 May 2014 07:06	1
HS14041068-47	MW-42-0414	22 Apr 2014 15:10		07 May 2014 10:34	26 May 2014 23:22	10
HS14041068-47	MW-42-0414	22 Apr 2014 15:10		07 May 2014 10:34	22 May 2014 07:10	1

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
WorkOrder: HS14041068

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R232796 Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C Matrix: Water						
HS14041068-01	MW-50-0414	21 Apr 2014 11:00			28 Apr 2014 18:40	1
HS14041068-03	MW-91-0414	21 Apr 2014 12:00			28 Apr 2014 18:40	1
HS14041068-05	MW-90-0414	21 Apr 2014 12:30			28 Apr 2014 18:40	1
HS14041068-07	MW-96-0414	21 Apr 2014 13:05			28 Apr 2014 18:40	1
HS14041068-09	MW-95-0414	21 Apr 2014 13:40			28 Apr 2014 18:40	1
HS14041068-11	RW-17-0414	21 Apr 2014 14:10			28 Apr 2014 18:40	1
HS14041068-13	RW-16-0414	21 Apr 2014 14:40			28 Apr 2014 18:40	1
HS14041068-15	Dup-10-0414	21 Apr 2014 00:00			28 Apr 2014 18:40	1
HS14041068-17	EB-14-0414	21 Apr 2014 15:10			28 Apr 2014 18:40	1
HS14041068-19	MW-93-0414	22 Apr 2014 08:10			28 Apr 2014 18:40	1
HS14041068-21	MW-43-0414	22 Apr 2014 08:55			28 Apr 2014 18:40	1
HS14041068-23	EB-15-0414	22 Apr 2014 09:10			28 Apr 2014 18:40	1
HS14041068-25	MW-23-0414	22 Apr 2014 09:35			28 Apr 2014 18:40	1
HS14041068-27	MW-62-0414	22 Apr 2014 10:10			28 Apr 2014 18:40	1
HS14041068-29	MW-106-0414	22 Apr 2014 10:45			28 Apr 2014 18:40	1
HS14041068-31	MW-98-0414	22 Apr 2014 11:20			28 Apr 2014 18:40	1
HS14041068-33	Dup-11-0414	22 Apr 2014 00:00			28 Apr 2014 18:40	1
Batch ID R232870 Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C Matrix: Water						
HS14041068-35	MW-59-0414	22 Apr 2014 12:00			29 Apr 2014 19:00	1
HS14041068-37	MW-60-0414	22 Apr 2014 12:35			29 Apr 2014 19:00	1
HS14041068-39	RW-10-0414	22 Apr 2014 13:15			29 Apr 2014 19:00	1
HS14041068-41	MW-40-0414	22 Apr 2014 13:45			29 Apr 2014 19:00	1
HS14041068-43	MW-41-0414	22 Apr 2014 14:15			29 Apr 2014 19:00	1
HS14041068-45	RW-9-0414	22 Apr 2014 14:40			29 Apr 2014 19:00	1
HS14041068-47	MW-42-0414	22 Apr 2014 15:10			29 Apr 2014 19:00	1
Batch ID R232881 Test Name : GASOLINE RANGE ORGANICS BY SW8015C Matrix: Water						
HS14041068-03	MW-91-0414	21 Apr 2014 12:00			30 Apr 2014 17:22	1
HS14041068-05	MW-90-0414	21 Apr 2014 12:30			30 Apr 2014 17:40	1
HS14041068-07	MW-96-0414	21 Apr 2014 13:05			30 Apr 2014 17:58	1
HS14041068-09	MW-95-0414	21 Apr 2014 13:40			30 Apr 2014 18:16	1
HS14041068-11	RW-17-0414	21 Apr 2014 14:10			30 Apr 2014 18:35	1
HS14041068-17	EB-14-0414	21 Apr 2014 15:10			30 Apr 2014 18:53	1
HS14041068-19	MW-93-0414	22 Apr 2014 08:10			30 Apr 2014 21:21	1
HS14041068-21	MW-43-0414	22 Apr 2014 08:55			30 Apr 2014 21:39	1
HS14041068-23	EB-15-0414	22 Apr 2014 09:10			30 Apr 2014 21:57	1

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
WorkOrder: HS14041068

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R232955 Test Name : GASOLINE RANGE ORGANICS BY SW8015C Matrix: Water						
HS14041068-25	MW-23-0414	22 Apr 2014 09:35			01 May 2014 14:44	1
HS14041068-27	MW-62-0414	22 Apr 2014 10:10			01 May 2014 15:03	1
HS14041068-29	MW-106-0414	22 Apr 2014 10:45			01 May 2014 15:39	1
HS14041068-31	MW-98-0414	22 Apr 2014 11:20			01 May 2014 15:57	1
HS14041068-33	Dup-11-0414	22 Apr 2014 00:00			01 May 2014 16:15	1
HS14041068-35	MW-59-0414	22 Apr 2014 12:00			01 May 2014 16:33	1
HS14041068-37	MW-60-0414	22 Apr 2014 12:35			01 May 2014 17:12	1
HS14041068-39	RW-10-0414	22 Apr 2014 13:15			01 May 2014 13:50	1
HS14041068-41	MW-40-0414	22 Apr 2014 13:45			01 May 2014 17:31	1
HS14041068-43	MW-41-0414	22 Apr 2014 14:15			01 May 2014 17:49	1
HS14041068-45	RW-9-0414	22 Apr 2014 14:40			01 May 2014 18:07	1
HS14041068-47	MW-42-0414	22 Apr 2014 15:10			01 May 2014 18:25	1
Batch ID R232988 Test Name : VOLATILES - SW8260C Matrix: Water						
HS14041068-01	MW-50-0414	21 Apr 2014 11:00			30 Apr 2014 17:25	1
HS14041068-05	MW-90-0414	21 Apr 2014 12:30			30 Apr 2014 17:49	1
HS14041068-09	MW-95-0414	21 Apr 2014 13:40			30 Apr 2014 18:14	1
HS14041068-11	RW-17-0414	21 Apr 2014 14:10			30 Apr 2014 18:38	1
HS14041068-13	RW-16-0414	21 Apr 2014 14:40			30 Apr 2014 19:02	1
HS14041068-15	Dup-10-0414	21 Apr 2014 00:00			30 Apr 2014 19:26	1
HS14041068-17	EB-14-0414	21 Apr 2014 15:10			30 Apr 2014 19:50	1
HS14041068-23	EB-15-0414	22 Apr 2014 09:10			30 Apr 2014 20:14	1
HS14041068-35	MW-59-0414	22 Apr 2014 12:00			30 Apr 2014 23:27	1
Batch ID R233074 Test Name : CYANIDE BY SW9012B Matrix: Water						
HS14041068-17	EB-14-0414	21 Apr 2014 15:10			03 May 2014 09:57	1
Batch ID R233156 Test Name : VOLATILES - SW8260C Matrix: Water						
HS14041068-03	MW-91-0414	21 Apr 2014 12:00			02 May 2014 21:25	5
HS14041068-07	MW-96-0414	21 Apr 2014 13:05			02 May 2014 21:50	25
HS14041068-19	MW-93-0414	22 Apr 2014 08:10			02 May 2014 22:14	5
HS14041068-21	MW-43-0414	22 Apr 2014 08:55			02 May 2014 19:49	1
HS14041068-25	MW-23-0414	22 Apr 2014 09:35			02 May 2014 22:37	20
HS14041068-27	MW-62-0414	22 Apr 2014 10:10			02 May 2014 20:13	1
HS14041068-29	MW-106-0414	22 Apr 2014 10:45			02 May 2014 23:02	20
HS14041068-31	MW-98-0414	22 Apr 2014 11:20			02 May 2014 23:26	10
HS14041068-45	RW-9-0414	22 Apr 2014 14:40			02 May 2014 20:37	1
HS14041068-47	MW-42-0414	22 Apr 2014 15:10			02 May 2014 21:01	1

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
WorkOrder: HS14041068

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID	R233164	Test Name : VOLATILES - SW8260C			Matrix: Water	
HS14041068-03	MW-91-0414	21 Apr 2014 12:00			02 May 2014 23:36	50
HS14041068-07	MW-96-0414	21 Apr 2014 13:05			02 May 2014 23:10	250
HS14041068-19	MW-93-0414	22 Apr 2014 08:10			02 May 2014 22:45	25
HS14041068-25	MW-23-0414	22 Apr 2014 09:35			02 May 2014 21:55	200
HS14041068-29	MW-106-0414	22 Apr 2014 10:45			02 May 2014 22:20	200
HS14041068-31	MW-98-0414	22 Apr 2014 11:20			02 May 2014 21:30	100
Batch ID	R233166	Test Name : VOLATILES - SW8260C			Matrix: Water	
HS14041068-21	MW-43-0414	22 Apr 2014 08:55			02 May 2014 19:10	10
HS14041068-27	MW-62-0414	22 Apr 2014 10:10			02 May 2014 19:33	10
HS14041068-45	RW-9-0414	22 Apr 2014 14:40			02 May 2014 19:56	10
HS14041068-47	MW-42-0414	22 Apr 2014 15:10			02 May 2014 20:19	10
Batch ID	R233225	Test Name : VOLATILES - SW8260C			Matrix: Water	
HS14041068-33	Dup-11-0414	22 Apr 2014 00:00			06 May 2014 19:14	100
HS14041068-33	Dup-11-0414	22 Apr 2014 00:00			06 May 2014 18:50	10
HS14041068-37	MW-60-0414	22 Apr 2014 12:35			06 May 2014 16:49	1
HS14041068-39	RW-10-0414	22 Apr 2014 13:15			06 May 2014 17:13	1
HS14041068-41	MW-40-0414	22 Apr 2014 13:45			06 May 2014 17:37	1
HS14041068-43	MW-41-0414	22 Apr 2014 14:15			06 May 2014 18:02	1
HS14041068-49	TB-032714-32	23 Apr 2014 15:00			06 May 2014 18:26	1

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
WorkOrder: HS14041068

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R233287	Test Name : ANIONS BY E300.0			Matrix: Water		
HS14041068-23	EB-15-0414	22 Apr 2014 09:10			06 May 2014 04:23	1
HS14041068-25	MW-23-0414	22 Apr 2014 09:35			06 May 2014 04:38	1
HS14041068-25	MW-23-0414	22 Apr 2014 09:35			06 May 2014 00:02	50
HS14041068-27	MW-62-0414	22 Apr 2014 10:10			06 May 2014 04:52	1
HS14041068-27	MW-62-0414	22 Apr 2014 10:10			06 May 2014 00:16	50
HS14041068-29	MW-106-0414	22 Apr 2014 10:45			06 May 2014 05:07	1
HS14041068-29	MW-106-0414	22 Apr 2014 10:45			06 May 2014 00:31	50
HS14041068-31	MW-98-0414	22 Apr 2014 11:20			06 May 2014 05:22	1
HS14041068-31	MW-98-0414	22 Apr 2014 11:20			06 May 2014 00:45	50
HS14041068-33	Dup-11-0414	22 Apr 2014 00:00			06 May 2014 05:36	1
HS14041068-33	Dup-11-0414	22 Apr 2014 00:00			06 May 2014 01:00	50
HS14041068-35	MW-59-0414	22 Apr 2014 12:00			06 May 2014 05:51	1
HS14041068-35	MW-59-0414	22 Apr 2014 12:00			06 May 2014 01:14	50
HS14041068-37	MW-60-0414	22 Apr 2014 12:35			06 May 2014 06:05	1
HS14041068-37	MW-60-0414	22 Apr 2014 12:35			06 May 2014 01:29	50
HS14041068-39	RW-10-0414	22 Apr 2014 13:15			06 May 2014 06:20	1
HS14041068-39	RW-10-0414	22 Apr 2014 13:15			06 May 2014 01:43	50
HS14041068-41	MW-40-0414	22 Apr 2014 13:45			06 May 2014 06:34	1
HS14041068-41	MW-40-0414	22 Apr 2014 13:45			06 May 2014 02:27	50
HS14041068-43	MW-41-0414	22 Apr 2014 14:15			06 May 2014 07:33	1
HS14041068-43	MW-41-0414	22 Apr 2014 14:15			06 May 2014 02:42	50
HS14041068-45	RW-9-0414	22 Apr 2014 14:40			06 May 2014 07:47	1
HS14041068-45	RW-9-0414	22 Apr 2014 14:40			06 May 2014 02:56	50
HS14041068-47	MW-42-0414	22 Apr 2014 15:10			06 May 2014 08:02	1
HS14041068-47	MW-42-0414	22 Apr 2014 15:10			06 May 2014 03:11	50

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
WorkOrder: HS14041068

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R233295	Test Name : ANIONS BY E300.0			Matrix: Water		
HS14041068-01	MW-50-0414	21 Apr 2014 11:00			03 May 2014 23:13	50
HS14041068-01	MW-50-0414	21 Apr 2014 11:00			03 May 2014 18:51	1
HS14041068-03	MW-91-0414	21 Apr 2014 12:00			03 May 2014 23:27	50
HS14041068-03	MW-91-0414	21 Apr 2014 12:00			03 May 2014 19:05	1
HS14041068-05	MW-90-0414	21 Apr 2014 12:30			03 May 2014 23:42	50
HS14041068-05	MW-90-0414	21 Apr 2014 12:30			03 May 2014 19:20	1
HS14041068-07	MW-96-0414	21 Apr 2014 13:05			03 May 2014 23:56	50
HS14041068-07	MW-96-0414	21 Apr 2014 13:05			03 May 2014 19:35	1
HS14041068-09	MW-95-0414	21 Apr 2014 13:40			04 May 2014 00:11	50
HS14041068-09	MW-95-0414	21 Apr 2014 13:40			03 May 2014 19:49	1
HS14041068-11	RW-17-0414	21 Apr 2014 14:10			04 May 2014 00:25	50
HS14041068-11	RW-17-0414	21 Apr 2014 14:10			03 May 2014 20:04	1
HS14041068-13	RW-16-0414	21 Apr 2014 14:40			04 May 2014 00:40	50
HS14041068-13	RW-16-0414	21 Apr 2014 14:40			03 May 2014 20:18	1
HS14041068-15	Dup-10-0414	21 Apr 2014 00:00			04 May 2014 00:55	50
HS14041068-15	Dup-10-0414	21 Apr 2014 00:00			03 May 2014 21:16	1
HS14041068-17	EB-14-0414	21 Apr 2014 15:10			03 May 2014 21:31	1
HS14041068-19	MW-93-0414	22 Apr 2014 08:10			04 May 2014 01:09	50
HS14041068-19	MW-93-0414	22 Apr 2014 08:10			03 May 2014 21:45	1
HS14041068-21	MW-43-0414	22 Apr 2014 08:55			04 May 2014 01:24	50
HS14041068-21	MW-43-0414	22 Apr 2014 08:55			03 May 2014 22:00	1
Batch ID R233298	Test Name : CYANIDE BY SW9012B			Matrix: Water		
HS14041068-21	MW-43-0414	22 Apr 2014 08:55		05 May 2014 15:09	06 May 2014 18:08	10
HS14041068-23	EB-15-0414	22 Apr 2014 09:10		05 May 2014 03:09	06 May 2014 18:08	1
HS14041068-37	MW-60-0414	22 Apr 2014 12:35		05 May 2014 03:09	06 May 2014 18:08	10

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
WorkOrder: HS14041068

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R233694	Test Name : NITRATE/NITRITE BY E300.0			Matrix: Water		
HS14041068-01	MW-50-0414	21 Apr 2014 11:00			12 May 2014 19:19	5
HS14041068-03	MW-91-0414	21 Apr 2014 12:00			12 May 2014 19:33	5
HS14041068-05	MW-90-0414	21 Apr 2014 12:30			12 May 2014 19:48	5
HS14041068-07	MW-96-0414	21 Apr 2014 13:05			12 May 2014 20:02	5
HS14041068-09	MW-95-0414	21 Apr 2014 13:40			12 May 2014 20:17	5
HS14041068-11	RW-17-0414	21 Apr 2014 14:10			12 May 2014 20:31	5
HS14041068-13	RW-16-0414	21 Apr 2014 14:40			12 May 2014 20:46	5
HS14041068-15	Dup-10-0414	21 Apr 2014 00:00			12 May 2014 21:00	5
HS14041068-17	EB-14-0414	21 Apr 2014 15:10			12 May 2014 21:44	5
HS14041068-19	MW-93-0414	22 Apr 2014 08:10			12 May 2014 21:59	5
HS14041068-21	MW-43-0414	22 Apr 2014 08:55			12 May 2014 22:13	5
HS14041068-23	EB-15-0414	22 Apr 2014 09:10			12 May 2014 22:28	5
HS14041068-25	MW-23-0414	22 Apr 2014 09:35			12 May 2014 22:42	5
HS14041068-27	MW-62-0414	22 Apr 2014 10:10			12 May 2014 22:57	5
HS14041068-29	MW-106-0414	22 Apr 2014 10:45			12 May 2014 23:11	5
HS14041068-31	MW-98-0414	22 Apr 2014 11:20			12 May 2014 23:26	5
HS14041068-33	Dup-11-0414	22 Apr 2014 00:00			12 May 2014 23:40	5
HS14041068-35	MW-59-0414	22 Apr 2014 12:00			12 May 2014 23:55	5
HS14041068-37	MW-60-0414	22 Apr 2014 12:35			13 May 2014 00:39	5
HS14041068-39	RW-10-0414	22 Apr 2014 13:15			13 May 2014 00:53	5
Batch ID R233724	Test Name : NITRATE/NITRITE BY E300.0			Matrix: Water		
HS14041068-41	MW-40-0414	22 Apr 2014 13:45			13 May 2014 02:06	5
HS14041068-43	MW-41-0414	22 Apr 2014 14:15			13 May 2014 02:21	5
HS14041068-45	RW-9-0414	22 Apr 2014 14:40			13 May 2014 02:35	5
HS14041068-47	MW-42-0414	22 Apr 2014 15:10			13 May 2014 02:50	5

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81274		Instrument: FID-16		Method: SW8015M	
MBLK	Sample ID: LBLKW-140428	Units: mg/L		Analysis Date: 29-Apr-2014 11:25	
Client ID:	Run ID: FID-16_233286	SeqNo: 2825241		PrepDate: 28-Apr-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

TPH (Diesel Range) U 0.050

Surr: 2-Fluorobiphenyl 0.03911 0.0050 0.06061 0 64.5 60 - 135

LCS	Sample ID: LLCSSW-140428	Units: mg/L		Analysis Date: 29-Apr-2014 11:52	
Client ID:	Run ID: FID-16_233286	SeqNo: 2825242		PrepDate: 28-Apr-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

TPH (Diesel Range) 0.5445 0.050 0.6061 0 89.8 70 - 130

Surr: 2-Fluorobiphenyl 0.04275 0.0050 0.06061 0 70.5 60 - 135

LCSD	Sample ID: LLCSDW-140428	Units: mg/L		Analysis Date: 29-Apr-2014 12:19	
Client ID:	Run ID: FID-16_233286	SeqNo: 2825243		PrepDate: 28-Apr-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

TPH (Diesel Range) 0.5019 0.050 0.6061 0 82.8 70 - 130 0.5445 8.15 20

Surr: 2-Fluorobiphenyl 0.04567 0.0050 0.06061 0 75.4 60 - 135 0.04275 6.59 20

The following samples were analyzed in this batch:				HS14041068-01	HS14041068-03	HS14041068-05	HS14041068-07
				HS14041068-09	HS14041068-11	HS14041068-13	HS14041068-15
				HS14041068-17	HS14041068-19	HS14041068-21	HS14041068-23
				HS14041068-25	HS14041068-27	HS14041068-29	HS14041068-31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81347B		Instrument: FID-16		Method: SW8015M	
MBLK	Sample ID: LBLKW-140429	Units: mg/L		Analysis Date: 30-Apr-2014 09:26	
Client ID:	Run ID: FID-16_232923	SeqNo: 2825349		PrepDate: 29-Apr-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

TPH (Diesel Range) U 0.050

Surr: 2-Fluorobiphenyl 0.03851 0.0050 0.06061 0 63.5 60 - 135

LCS	Sample ID: LLCSSW-140429	Units: mg/L		Analysis Date: 30-Apr-2014 09:52	
Client ID:	Run ID: FID-16_232923	SeqNo: 2825350		PrepDate: 29-Apr-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

TPH (Diesel Range) 0.5091 0.050 0.6061 0 84.0 70 - 130

Surr: 2-Fluorobiphenyl 0.04495 0.0050 0.06061 0 74.2 60 - 135

LCSD	Sample ID: LLCSDW-140429	Units: mg/L		Analysis Date: 30-Apr-2014 10:19	
Client ID:	Run ID: FID-16_232923	SeqNo: 2825351		PrepDate: 29-Apr-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

TPH (Diesel Range) 0.539 0.050 0.6061 0 88.9 70 - 130 0.5091 5.71 20

Surr: 2-Fluorobiphenyl 0.0411 0.0050 0.06061 0 67.8 60 - 135 0.04495 8.94 20

The following samples were analyzed in this batch:		HS14041068-33	HS14041068-35	HS14041068-37	HS14041068-39
		HS14041068-41	HS14041068-43	HS14041068-45	HS14041068-47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R232881		Instrument: FID-9		Method: SW8015					
MBLK	Sample ID: GBLKW-140430	Units: mg/L		Analysis Date: 30-Apr-2014 14:57					
Client ID:	Run ID: FID-9_232881	SeqNo: 2816228		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Gasoline Range Organics U 0.0500

Surr: 4-Bromofluorobenzene 0.1157 0.00500 0.1 0 116 70 - 130

LCS	Sample ID: GLCSW-140430	Units: mg/L		Analysis Date: 30-Apr-2014 14:21					
Client ID:	Run ID: FID-9_232881	SeqNo: 2816227		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Gasoline Range Organics 0.9898 0.0500 1 0 99.0 70 - 130

Surr: 4-Bromofluorobenzene 0.1214 0.00500 0.1 0 121 70 - 130

MS	Sample ID: HS14041108-01MS	Units: mg/L		Analysis Date: 30-Apr-2014 15:33					
Client ID:	Run ID: FID-9_232881	SeqNo: 2816230		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Gasoline Range Organics 1.013 0.0500 1 0 101 70 - 130

Surr: 4-Bromofluorobenzene 0.1197 0.00500 0.1 0 120 70 - 130

MSD	Sample ID: HS14041108-01MSD	Units: mg/L		Analysis Date: 30-Apr-2014 15:51					
Client ID:	Run ID: FID-9_232881	SeqNo: 2816231		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Gasoline Range Organics 1.009 0.0500 1 0 101 70 - 130 1.013 0.336 30

Surr: 4-Bromofluorobenzene 0.1162 0.00500 0.1 0 116 70 - 130 0.1197 3.01 30

The following samples were analyzed in this batch:

HS14041068-03	HS14041068-05	HS14041068-07	HS14041068-09
HS14041068-11	HS14041068-17	HS14041068-19	HS14041068-21
HS14041068-23			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R232955		Instrument: FID-9		Method: SW8015	
MBLK	Sample ID: GBLKW-140501	Units: mg/L		Analysis Date: 01-May-2014 13:14	
Client ID:	Run ID: FID-9_232955	SeqNo: 2817662		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Gasoline Range Organics U 0.0500

Surr: 4-Bromofluorobenzene 0.1179 0.00500 0.1 0 118 70 - 130

LCS	Sample ID: GLCSW-140501	Units: mg/L		Analysis Date: 01-May-2014 12:38	
Client ID:	Run ID: FID-9_232955	SeqNo: 2817660		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Gasoline Range Organics 0.9974 0.0500 1 0 99.7 70 - 130

Surr: 4-Bromofluorobenzene 0.1222 0.00500 0.1 0 122 70 - 130

MS	Sample ID: HS14041068-39MS	Units: mg/L		Analysis Date: 01-May-2014 14:08	
Client ID: RW-10-0414	Run ID: FID-9_232955	SeqNo: 2817665		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Gasoline Range Organics 1.009 0.0500 1 0 101 70 - 130

Surr: 4-Bromofluorobenzene 0.1229 0.00500 0.1 0 123 70 - 130

MSD	Sample ID: HS14041068-39MSD	Units: mg/L		Analysis Date: 01-May-2014 14:26	
Client ID: RW-10-0414	Run ID: FID-9_232955	SeqNo: 2817666		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Gasoline Range Organics 0.9893 0.0500 1 0 98.9 70 - 130 1.009 1.99 30

Surr: 4-Bromofluorobenzene 0.1232 0.00500 0.1 0 123 70 - 130 0.1229 0.233 30

The following samples were analyzed in this batch:			
HS14041068-25	HS14041068-27	HS14041068-29	HS14041068-31
HS14041068-33	HS14041068-35	HS14041068-37	HS14041068-39
HS14041068-41	HS14041068-43	HS14041068-45	HS14041068-47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81635		Instrument: ICP7500		Method: SW6020	
MBLK	Sample ID: MBLKW1-050614	Units: mg/L		Analysis Date: 13-May-2014 16:56	
Client ID:	Run ID: ICP7500_233632	SeqNo: 2833239		PrepDate: 06-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	U	0.00500			
Barium	U	0.00500			
Chromium	U	0.00500			
Iron	U	0.200			
Lead	U	0.00500			
Manganese	U	0.00500			
Selenium	U	0.00500			

LCS	Sample ID: MLCSW1-050614	Units: mg/L		Analysis Date: 13-May-2014 17:01	
Client ID:	Run ID: ICP7500_233632	SeqNo: 2833240		PrepDate: 06-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.05299	0.00500	0.05	0 106	80 - 120
Barium	0.05275	0.00500	0.05	0 106	80 - 120
Chromium	0.05222	0.00500	0.05	0 104	80 - 120
Iron	5.221	0.200	5	0 104	80 - 120
Lead	0.05064	0.00500	0.05	0 101	80 - 120
Manganese	0.05222	0.00500	0.05	0 104	80 - 120
Selenium	0.05315	0.00500	0.05	0 106	80 - 120

MS	Sample ID: HS14040241-13MS	Units: mg/L		Analysis Date: 13-May-2014 19:26	
Client ID:	Run ID: ICP7500_233632	SeqNo: 2834090		PrepDate: 06-May-2014	DF: 50
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.0532	0.250	0.05	0 106	75 - 125 J
Barium	147.6	0.250	0.05	0 2950 00	75 - 125 SE
Chromium	0.05435	0.250	0.05	0 109	75 - 125 J
Iron	18	10.0	5	0 360	75 - 125 S
Lead	0.06105	0.250	0.05	0 122	75 - 125 J
Manganese	1.583	0.250	0.05	0 3170	75 - 125 S
Selenium	0.0503	0.250	0.05	0 101	75 - 125 J

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81635		Instrument: ICP7500		Method: SW6020	
MSD	Sample ID: HS14040241-13MSD	Units: mg/L		Analysis Date: 13-May-2014 19:36	
Client ID:	Run ID: ICP7500_233632	SeqNo: 2834092		PrepDate: 06-May-2014	DF: 50
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	U	0.250	0.05	0 0	75 - 125 0 0 25 S
Barium	147	0.250	0.05	0 2940 00	75 - 125 0 0 25 SE
Chromium	0.05145	0.250	0.05	0 103	75 - 125 0 0 25 J
Iron	17.44	10.0	5	0 349	75 - 125 0 0 25 S
Lead	0.06105	0.250	0.05	0 122	75 - 125 0 0 25 J
Manganese	1.51	0.250	0.05	0 3020	75 - 125 0 0 25 S
Selenium	0.055	0.250	0.05	0 110	75 - 125 0 0 25 J
DUP	Sample ID: HS14040241-13DUP	Units: mg/L		Analysis Date: 13-May-2014 19:16	
Client ID:	Run ID: ICP7500_233632	SeqNo: 2834088		PrepDate: 06-May-2014	DF: 50
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	U	0.250			0 0 25
Chromium	U	0.250			0 0 25
Iron	12.24	10.0			0 0 25
Lead	U	0.250			0 0 25
Manganese	1.513	0.250			0 0 25
Selenium	U	0.250			0 0 25
DUP	Sample ID: HS14040241-13DUP	Units: mg/L		Analysis Date: 14-May-2014 18:34	
Client ID:	Run ID: ICPMS03_233719	SeqNo: 2835597		PrepDate: 06-May-2014	DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Barium	157.9	0.500			163.4 3.42 25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81635		Instrument: ICP7500		Method: SW6020	
PDS	Sample ID: HS14040241-13BS	Units: mg/L		Analysis Date: 13-May-2014 19:46	
Client ID:	Run ID: ICP7500_233632	SeqNo: 2834094		PrepDate:	DF: 50
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	5.215	0.250	5	0 104	75 - 125
Chromium	5.13	0.250	5	0 103	75 - 125
Iron	505.5	10.0	500	0 101	75 - 125
Lead	4.912	0.250	5	0 98.2	75 - 125
Manganese	6.335	0.250	5	0 127	75 - 125 S
Selenium	4.808	0.250	5	0 96.2	75 - 125

PDS	Sample ID: HS14040241-13BS	Units: mg/L		Analysis Date: 14-May-2014 18:42	
Client ID:	Run ID: ICPMS03_233719	SeqNo: 2835599		PrepDate:	DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Barium	173.1	0.500	10	163.4 97.0	75 - 125 O

SD	Sample ID: HS14040241-13 DIL SX	Units: mg/L		Analysis Date: 13-May-2014 19:21	
Client ID:	Run ID: ICP7500_233632	SeqNo: 2834089		PrepDate:	DF: 250
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	U	1.25			0 0 10
Chromium	U	1.25			0 0 10
Iron	U	50.0			0 0 10
Lead	U	1.25			0 0 10
Manganese	1.467	1.25			0 0 10
Selenium	U	1.25			0 0 10

SD	Sample ID: HS14040241-13 DIL SX	Units: mg/L		Analysis Date: 14-May-2014 18:38	
Client ID:	Run ID: ICPMS03_233719	SeqNo: 2835598		PrepDate:	DF: 500
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Barium	156.4	2.50			163.4 4.25 10

The following samples were analyzed in this batch:					
HS14041068-02	HS14041068-04	HS14041068-06	HS14041068-08		
HS14041068-10	HS14041068-12	HS14041068-14	HS14041068-16		

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81637		Instrument: ICPMS05		Method: SW6020	
MBLK	Sample ID: MBLKW2-050614	Units: mg/L		Analysis Date: 21-May-2014 15:19	
Client ID:	Run ID: ICPMS05_234117	SeqNo: 2845473		PrepDate: 06-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Arsenic	U	0.00500			
Barium	U	0.00500			
Chromium	U	0.00500			
Iron	U	0.200			
Lead	U	0.00500			
Manganese	U	0.00500			
Nickel	U	0.00500			
Selenium	U	0.00500			
Vanadium	0.001949	0.00500			J

LCS	Sample ID: MLCSW2-050614	Units: mg/L		Analysis Date: 21-May-2014 15:21	
Client ID:	Run ID: ICPMS05_234117	SeqNo: 2845474		PrepDate: 06-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Arsenic	0.05305	0.00500	0.05	0 106	80 - 120
Barium	0.05077	0.00500	0.05	0 102	80 - 120
Chromium	0.05308	0.00500	0.05	0 106	80 - 120
Iron	5.383	0.200	5	0 108	80 - 120
Lead	0.05115	0.00500	0.05	0 102	80 - 120
Manganese	0.05346	0.00500	0.05	0 107	80 - 120
Nickel	0.05267	0.00500	0.05	0 105	80 - 120
Selenium	0.05558	0.00500	0.05	0 111	80 - 120
Vanadium	0.0531	0.00500	0.05	0 106	80 - 120

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81637		Instrument: ICPMS05		Method: SW6020					
MS	Sample ID: HS14041054-04MS	Units: mg/L		Analysis Date: 21-May-2014 15:41					
Client ID:	Run ID: ICPMS05_234117	SeqNo: 2845483		PrepDate: 06-May-2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Arsenic	0.04917	0.00500	0.05	0.000247	97.8	75 - 125			
Barium	0.1746	0.00500	0.05	0.134	81.1	75 - 125			
Chromium	0.04927	0.00500	0.05	0.000108	98.3	75 - 125			
Iron	5.249	0.200	5	0.007874	105	75 - 125			
Lead	0.05269	0.00500	0.05	0.003772	97.8	75 - 125			
Manganese	0.0511	0.00500	0.05	0.001789	98.6	75 - 125			
Nickel	0.0504	0.00500	0.05	0.002209	96.4	75 - 125			
Selenium	0.05041	0.00500	0.05	-0.000123	101	75 - 125			
Vanadium	0.05713	0.00500	0.05	0.006751	101	75 - 125			

MSD	Sample ID: HS14041054-04MSD	Units: mg/L		Analysis Date: 21-May-2014 15:43					
Client ID:	Run ID: ICPMS05_234117	SeqNo: 2845484		PrepDate: 06-May-2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Arsenic	0.05101	0.00500	0.05	0.000247	102	75 - 125	0.04917	3.68	25
Barium	0.1824	0.00500	0.05	0.134	96.8	75 - 125	0.1746	4.4	25
Chromium	0.04992	0.00500	0.05	0.000108	99.6	75 - 125	0.04927	1.3	25
Iron	5.312	0.200	5	0.007874	106	75 - 125	5.249	1.2	25
Lead	0.05443	0.00500	0.05	0.003772	101	75 - 125	0.05269	3.25	25
Manganese	0.05155	0.00500	0.05	0.001789	99.5	75 - 125	0.0511	0.887	25
Nickel	0.05223	0.00500	0.05	0.002209	100	75 - 125	0.0504	3.57	25
Selenium	0.05091	0.00500	0.05	-0.000123	102	75 - 125	0.05041	1	25
Vanadium	0.05809	0.00500	0.05	0.006751	103	75 - 125	0.05713	1.67	25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81637		Instrument: ICPMS05		Method: SW6020	
DUP	Sample ID: HS14041054-04DUP	Units: mg/L		Analysis Date: 21-May-2014 15:38	
Client ID:	Run ID: ICPMS05_234117	SeqNo: 2845482		PrepDate: 06-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	U	0.00500			0.000247 0 25
Barium	0.1293	0.00500			0.134 3.55 25
Chromium	U	0.00500			0.000108 0 25
Iron	U	0.200			0.007874 0 25
Lead	0.004239	0.00500			0.003772 0 25 J
Manganese	U	0.00500			0.001789 0 25
Nickel	0.002483	0.00500			0.002209 0 25 J
Selenium	U	0.00500			-0.000123 0 25
Vanadium	0.009918	0.00500			0.006751 38 25 R

PDS	Sample ID: HS14041054-04BS	Units: mg/L		Analysis Date: 21-May-2014 15:46	
Client ID:	Run ID: ICPMS05_234117	SeqNo: 2845486		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.09449	0.00500	0.1	0.000247 94.2	75 - 125
Barium	0.2215	0.00500	0.1	0.134 87.5	75 - 125
Chromium	0.09346	0.00500	0.1	0.000108 93.4	75 - 125
Iron	9.387	0.200	10	0.007874 93.8	75 - 125
Lead	0.09704	0.00500	0.1	0.003772 93.3	75 - 125
Manganese	0.09397	0.00500	0.1	0.001789 92.2	75 - 125
Nickel	0.09516	0.00500	0.1	0.002209 93.0	75 - 125
Selenium	0.09624	0.00500	0.1	-0.000123 96.4	75 - 125
Vanadium	0.1009	0.00500	0.1	0.006751 94.2	75 - 125

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81637		Instrument: ICPMS05		Method: SW6020	
SD	Sample ID: HS14041054-04 DIL SX	Units: mg/L		Analysis Date: 21-May-2014 15:48	
Client ID:	Run ID: ICPMS05_234117	SeqNo: 2845487		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	U	0.0250			0.000247 0 10
Barium	0.1408	0.0250			0.134 5.07 10
Chromium	U	0.0250			0.000108 0 10
Iron	U	1.00			0.007874 0 10
Lead	0.007179	0.0250			0.003772 0 10 J
Manganese	U	0.0250			0.001789 0 10
Nickel	U	0.0250			0.002209 0 10
Selenium	U	0.0250			-0.000123 0 10
Vanadium	0.03772	0.0250			0.006751 0 10
The following samples were analyzed in this batch:					
HS14041068-18		HS14041068-20		HS14041068-22	
				HS14041068-24	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81696		Instrument: ICPMS03		Method: SW6020	
MBLK	Sample ID: MBLKW1-050714	Units: mg/L		Analysis Date: 21-May-2014 17:50	
Client ID:	Run ID: ICPMS03_234146	SeqNo: 2846096		PrepDate: 07-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	U	0.00500			
Barium	U	0.00500			
Chromium	U	0.00500			
Iron	U	0.200			
Lead	U	0.00500			
Manganese	U	0.00500			
Nickel	U	0.00500			
Selenium	0.001034	0.00500			J
Vanadium	U	0.00500			

LCS	Sample ID: MLCSW1-050714	Units: mg/L		Analysis Date: 21-May-2014 17:55	
Client ID:	Run ID: ICPMS03_234146	SeqNo: 2846097		PrepDate: 07-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.05538	0.00500	0.05	0 111	80 - 120
Barium	0.05657	0.00500	0.05	0 113	80 - 120
Chromium	0.0552	0.00500	0.05	0 110	80 - 120
Iron	5.561	0.200	5	0 111	80 - 120
Lead	0.05501	0.00500	0.05	0 110	80 - 120
Nickel	0.05687	0.00500	0.05	0 114	80 - 120
Selenium	0.05481	0.00500	0.05	0 110	80 - 120
Vanadium	0.05329	0.00500	0.05	0 107	80 - 120

LCS	Sample ID: MLCSW1-050714	Units: mg/L		Analysis Date: 22-May-2014 15:30	
Client ID:	Run ID: ICPMS03_234244	SeqNo: 2847738		PrepDate: 07-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Manganese	0.05182	0.00500	0.05	0 104	80 - 120

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81696		Instrument: ICPMS03		Method: SW6020						
MS		Sample ID: HS14050032-04MS		Units: mg/L		Analysis Date: 21-May-2014 20:08				
Client ID:		Run ID: ICPMS03_234146		SeqNo: 2846127		PrepDate: 07-May-2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.08219	0.00500	0.05	0.02255	119	75 - 125				
Barium	0.07939	0.00500	0.05	0.022	115	75 - 125				
Chromium	0.05184	0.00500	0.05	0	104	75 - 125				
Iron	5.119	0.200	5	0	102	75 - 125				
Lead	0.05347	0.00500	0.05	0	107	75 - 125				
Manganese	1.262	0.00500	0.05	1.158	208	75 - 125				SO
Nickel	0.06719	0.00500	0.05	0.01801	98.4	75 - 125				
Selenium	0.0888	0.00500	0.05	0.03396	110	75 - 125				
Vanadium	0.1703	0.00500	0.05	0.1176	105	75 - 125				

MSD		Sample ID: HS14050032-04MSD		Units: mg/L		Analysis Date: 21-May-2014 20:13				
Client ID:		Run ID: ICPMS03_234146		SeqNo: 2846128		PrepDate: 07-May-2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.08034	0.00500	0.05	0.02255	116	75 - 125	0.08219	2.28	25	
Barium	0.0768	0.00500	0.05	0.022	110	75 - 125	0.07939	3.32	25	
Chromium	0.04997	0.00500	0.05	0	99.9	75 - 125	0.05184	3.67	25	
Iron	5.005	0.200	5	0	100	75 - 125	5.119	2.25	25	
Lead	0.053	0.00500	0.05	0	106	75 - 125	0.05347	0.883	25	
Manganese	1.153	0.00500	0.05	1.158	- 10.0 0	75 - 125	1.262	9.03	25	SO
Nickel	0.06507	0.00500	0.05	0.01801	94.1	75 - 125	0.06719	3.21	25	
Selenium	0.09261	0.00500	0.05	0.03396	117	75 - 125	0.0888	4.2	25	
Vanadium	0.1665	0.00500	0.05	0.1176	97.8	75 - 125	0.1703	2.26	25	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81696		Instrument: ICPMS03		Method: SW6020						
DUP	Sample ID: HS14050032-04DUP	Units: mg/L			Analysis Date: 21-May-2014 20:00					
Client ID:	Run ID: ICPMS03_234146	SeqNo: 2846125		PrepDate: 07-May-2014		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.02195	0.00500					0.02255	2.7	25	
Barium	0.02239	0.00500					0.022	1.76	25	
Chromium	U	0.00500					0.000504	0	25	
Iron	U	0.200					0.0145	0	25	
Lead	U	0.00500					0.0001464	0	25	
Manganese	1.095	0.00500					1.158	5.59	25	
Nickel	0.01715	0.00500					0.01801	4.89	25	
Selenium	0.0327	0.00500					0.03396	3.78	25	
Vanadium	0.1138	0.00500					0.1176	3.28	25	

PDS	Sample ID: HS14050032-04BS	Units: mg/L			Analysis Date: 21-May-2014 20:21					
Client ID:	Run ID: ICPMS03_234146	SeqNo: 2846130		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.1286	0.00500	0.1	0.02255	106	75 - 125				
Barium	0.1164	0.00500	0.1	0.022	94.4	75 - 125				
Chromium	0.09292	0.00500	0.1	0.000504	92.4	75 - 125				
Iron	9.236	0.200	10	0.0145	92.2	75 - 125				
Lead	0.09852	0.00500	0.1	0.0001464	98.4	75 - 125				
Manganese	1.126	0.00500	0.1	1.158	-32.0	75 - 125				SO
Nickel	0.105	0.00500	0.1	0.01801	87.0	75 - 125				
Selenium	0.1367	0.00500	0.1	0.03396	103	75 - 125				
Vanadium	0.205	0.00500	0.1	0.1176	87.4	75 - 125				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81696		Instrument: ICPMS03		Method: SW6020						
SD	Sample ID: HS14050032-04 DIL SX	Units: mg/L		Analysis Date: 21-May-2014 20:04						
Client ID:	Run ID: ICPMS03_234146	SeqNo: 2846126		PrepDate:			DF: 5			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.0264	0.0250					0.02255	0	10	
Barium	0.02124	0.0250					0.022	0	10	J
Chromium	U	0.0250					0.000504	0	10	
Iron	U	1.00					0.0145	0	10	
Lead	U	0.0250					0.0001464	0	10	
Manganese	1.089	0.0250					1.158	5.96	10	
Nickel	0.01641	0.0250					0.01801	0	10	J
Selenium	0.04025	0.0250					0.03396	18.5	10	R
Vanadium	0.1126	0.0250					0.1176	4.21	10	
The following samples were analyzed in this batch:		HS14041068-26	HS14041068-28	HS14041068-30	HS14041068-32					
		HS14041068-34	HS14041068-36	HS14041068-38	HS14041068-40					
		HS14041068-42	HS14041068-44	HS14041068-46	HS14041068-48					

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81698		Instrument: ICPMS05	Method: SW6020	
MBLK	Sample ID: MBLKW2-050714	Units: mg/L	Analysis Date: 14-May-2014 18:35	
Client ID:	Run ID: ICPMS05_233689	SeqNo: 2836350	PrepDate: 07-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Arsenic	U	0.00500		
Barium	U	0.00500		
Calcium	0.1287	0.500		J
Chromium	U	0.00500		
Iron	U	0.200		
Lead	U	0.00500		
Manganese	U	0.00500		
Nickel	0.000915	0.00500		J
Potassium	U	0.200		
Selenium	U	0.00500		
Sodium	0.1355	0.200		J
Vanadium	U	0.00500		

LCS	Sample ID: MLCSW2-050714	Units: mg/L	Analysis Date: 14-May-2014 18:37	
Client ID:	Run ID: ICPMS05_233689	SeqNo: 2836351	PrepDate: 07-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Arsenic	0.05029	0.00500	0.05	0 101 80 - 120
Barium	0.05361	0.00500	0.05	0 107 80 - 120
Calcium	5.553	0.500	5	0 111 80 - 120
Chromium	0.05149	0.00500	0.05	0 103 80 - 120
Iron	5.213	0.200	5	0 104 80 - 120
Lead	0.05248	0.00500	0.05	0 105 80 - 120
Manganese	0.0548	0.00500	0.05	0 110 80 - 120
Nickel	0.05375	0.00500	0.05	0 108 80 - 120
Potassium	5.629	0.200	5	0 113 80 - 120
Selenium	0.05251	0.00500	0.05	0 105 80 - 120
Sodium	5.55	0.200	5	0 111 80 - 120
Vanadium	0.04774	0.00500	0.05	0 95.5 80 - 120

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81698		Instrument: ICPMS05		Method: SW6020						
MS		Sample ID: HS14050093-04MS		Units: mg/L		Analysis Date: 14-May-2014 19:34				
Client ID:		Run ID: ICPMS05_233689		SeqNo: 2836373		PrepDate: 07-May-2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05178	0.00500	0.05	-0.000066	104	80 - 120				
Barium	0.05474	0.00500	0.05	0.000122	109	80 - 120				
Calcium	5.538	0.500	5	3.875	33.3	80 - 120				S
Chromium	0.05045	0.00500	0.05	0.000022	101	80 - 120				
Iron	5.106	0.200	5	0.04702	101	80 - 120				
Lead	0.05209	0.00500	0.05	0.000148	104	80 - 120				
Manganese	0.05303	0.00500	0.05	0.01874	68.6	80 - 120				S
Nickel	0.05154	0.00500	0.05	0.000586	102	80 - 120				
Potassium	5.721	0.200	5	0.001413	114	80 - 120				
Selenium	0.05422	0.00500	0.05	0.000668	107	80 - 120				
Sodium	6.063	0.200	5	1.186	97.5	80 - 120				
Vanadium	0.05023	0.00500	0.05	-0.001196	103	80 - 120				

MSD		Sample ID: HS14050093-04MSD		Units: mg/L		Analysis Date: 14-May-2014 19:37				
Client ID:		Run ID: ICPMS05_233689		SeqNo: 2836374		PrepDate: 07-May-2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05436	0.00500	0.05	-0.000066	109	80 - 120	0.05178	4.87	15	
Barium	0.05539	0.00500	0.05	0.000122	111	80 - 120	0.05474	1.19	15	
Calcium	5.68	0.500	5	3.875	36.1	80 - 120	5.538	2.53	15	S
Chromium	0.05192	0.00500	0.05	0.000022	104	80 - 120	0.05045	2.88	15	
Iron	5.183	0.200	5	0.04702	103	80 - 120	5.106	1.5	15	
Lead	0.05569	0.00500	0.05	0.000148	111	80 - 120	0.05209	6.68	15	
Manganese	0.05455	0.00500	0.05	0.01874	71.6	80 - 120	0.05303	2.81	15	S
Nickel	0.05287	0.00500	0.05	0.000586	105	80 - 120	0.05154	2.56	15	
Potassium	5.673	0.200	5	0.001413	113	80 - 120	5.721	0.837	15	
Selenium	0.05436	0.00500	0.05	0.000668	107	80 - 120	0.05422	0.263	15	
Sodium	6.127	0.200	5	1.186	98.8	80 - 120	6.063	1.06	15	
Vanadium	0.05178	0.00500	0.05	-0.001196	106	80 - 120	0.05023	3.03	15	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81698		Instrument: ICPMS05		Method: SW6020	
DUP		Sample ID: HS14050093-04DUP		Units: mg/L	Analysis Date: 14-May-2014 19:32
Client ID:		Run ID: ICPMS05_233689		SeqNo: 2836372	PrepDate: 07-May-2014 DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	U	0.00500			-0.000066 0 25
Barium	U	0.00500			0.000122 0 25
Calcium	0.2736	0.500			3.875 0 25 J
Chromium	U	0.00500			0.000022 0 25
Iron	U	0.200			0.04702 0 25
Lead	U	0.00500			0.000148 0 25
Manganese	U	0.00500			0.01874 0 25
Nickel	U	0.00500			0.000586 0 25
Potassium	U	0.200			0.001413 0 25
Selenium	0.001007	0.00500			0.000668 0 25 J
Sodium	0.7158	0.200			1.186 49.5 25 R
Vanadium	U	0.00500			-0.001196 0 25

PDS		Sample ID: HS14050093-04BS		Units: mg/L	Analysis Date: 14-May-2014 19:39
Client ID:		Run ID: ICPMS05_233689		SeqNo: 2836375	PrepDate: DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.09872	0.00500	0.1	-0.000066 98.8	75 - 125
Barium	0.09744	0.00500	0.1	0.000122 97.3	75 - 125
Calcium	10.31	0.500	10	3.875 64.4	75 - 125 S
Chromium	0.09213	0.00500	0.1	0.000022 92.1	75 - 125
Iron	9.454	0.200	10	0.04702 94.1	75 - 125
Lead	0.09988	0.00500	0.1	0.000148 99.7	75 - 125
Manganese	0.09366	0.00500	0.1	0.01874 74.9	75 - 125 S
Nickel	0.09326	0.00500	0.1	0.000586 92.7	75 - 125
Potassium	10.52	0.200	10	0.001413 105	75 - 125
Selenium	0.1019	0.00500	0.1	0.000668 101	75 - 125
Sodium	10.27	0.200	10	1.186 90.8	75 - 125
Vanadium	0.09585	0.00500	0.1	-0.001196 97.1	75 - 125

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81698		Instrument: ICPMS05		Method: SW6020	
SD	Sample ID: HS14050093-04 DIL SX	Units: mg/L		Analysis Date: 14-May-2014 19:41	
Client ID:	Run ID: ICPMS05_233689	SeqNo: 2836376		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	U	0.0250			-0.000066 0 10
Barium	U	0.0250			0.000122 0 10
Calcium	0.4463	2.50			3.875 88.5 10 JR
Chromium	U	0.0250			0.000022 0 10
Iron	U	1.00			0.04702 0 10
Lead	0.003299	0.0250			0.000148 0 10 J
Manganese	U	0.0250			0.01874 0 10
Nickel	U	0.0250			0.000586 0 10
Potassium	0.4346	1.00			0.001413 0 10 J
Selenium	0.004401	0.0250			0.000668 0 10 J
Sodium	1.913	1.00			1.186 61.3 10 R
Vanadium	U	0.0250			-0.001196 0 10
The following samples were analyzed in this batch:					
HS14041068-01		HS14041068-03		HS14041068-05	
HS14041068-09		HS14041068-11		HS14041068-13	
HS14041068-17		HS14041068-19		HS14041068-21	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81701		Instrument: ICPMS03	Method: SW6020	
MBLK	Sample ID: MBLKW3-050714	Units: mg/L	Analysis Date: 27-May-2014 15:59	
Client ID:	Run ID: ICPMS03_234394	SeqNo: 2851457	PrepDate: 07-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Arsenic	U	0.00500		
Barium	U	0.00500		
Calcium	U	0.500		
Chromium	U	0.00500		
Iron	U	0.200		
Lead	U	0.00500		
Manganese	U	0.00500		
Nickel	U	0.00500		
Selenium	U	0.00500		
Sodium	U	0.200		
Vanadium	U	0.00500		

LCS	Sample ID: MLCSW3-050714	Units: mg/L	Analysis Date: 27-May-2014 16:04	
Client ID:	Run ID: ICPMS03_234394	SeqNo: 2851458	PrepDate: 07-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.05014	0.00500	0.05	0 100 80 - 120
Barium	0.05511	0.00500	0.05	0 110 80 - 120
Calcium	5.239	0.500	5	0 105 80 - 120
Chromium	0.05126	0.00500	0.05	0 103 80 - 120
Iron	5.177	0.200	5	0 104 80 - 120
Lead	0.05016	0.00500	0.05	0 100 80 - 120
Manganese	0.05143	0.00500	0.05	0 103 80 - 120
Nickel	0.05176	0.00500	0.05	0 104 80 - 120
Selenium	0.04992	0.00500	0.05	0 99.8 80 - 120
Sodium	5.085	0.200	5	0 102 80 - 120
Vanadium	0.0499	0.00500	0.05	0 99.8 80 - 120

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81701		Instrument: ICPMS03		Method: SW6020						
MS		Sample ID: HS14041271-04MS		Units: mg/L		Analysis Date: 27-May-2014 00:24				
Client ID:		Run ID: ICPMS03_234348		SeqNo: 2850847		PrepDate: 07-May-2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05606	0.00500	0.05	0.005511	101	80 - 120				
Barium	0.07788	0.00500	0.05	0.02608	104	80 - 120				
Calcium	359.7	0.500	5	350.4	186	80 - 120				SEO
Chromium	0.04857	0.00500	0.05	0.001046	95.0	80 - 120				
Iron	4.8	0.200	5	0.1178	93.6	80 - 120				
Lead	0.04915	0.00500	0.05	0.0005028	97.3	80 - 120				
Manganese	0.1386	0.00500	0.05	0.08994	97.3	80 - 120				
Nickel	0.04989	0.00500	0.05	0.003916	91.9	80 - 120				
Selenium	0.05805	0.00500	0.05	0.008582	98.9	80 - 120				
Sodium	285.5	0.200	5	280.3	104	80 - 120				EO
Vanadium	0.1012	0.00500	0.05	0.0534	95.6	80 - 120				

MSD		Sample ID: HS14041271-04MSD		Units: mg/L		Analysis Date: 27-May-2014 00:28				
Client ID:		Run ID: ICPMS03_234348		SeqNo: 2850848		PrepDate: 07-May-2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05994	0.00500	0.05	0.005511	109	80 - 120	0.05606	6.69	15	
Barium	0.0805	0.00500	0.05	0.02608	109	80 - 120	0.07788	3.31	15	
Calcium	363.8	0.500	5	350.4	268	80 - 120	359.7	1.13	15	SEO
Chromium	0.05046	0.00500	0.05	0.001046	98.8	80 - 120	0.04857	3.82	15	
Iron	4.992	0.200	5	0.1178	97.5	80 - 120	4.8	3.92	15	
Lead	0.04995	0.00500	0.05	0.0005028	98.9	80 - 120	0.04915	1.61	15	
Manganese	0.1441	0.00500	0.05	0.08994	108	80 - 120	0.1386	3.89	15	
Nickel	0.05189	0.00500	0.05	0.003916	95.9	80 - 120	0.04989	3.93	15	
Selenium	0.06227	0.00500	0.05	0.008582	107	80 - 120	0.05805	7.01	15	
Sodium	283.5	0.200	5	280.3	64.0	80 - 120	285.5	0.703	15	SEO
Vanadium	0.1042	0.00500	0.05	0.0534	102	80 - 120	0.1012	2.92	15	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81701		Instrument: ICPMS03		Method: SW6020	
DUP	Sample ID: HS14041271-04DUP	Units: mg/L		Analysis Date: 27-May-2014 00:15	
Client ID:	Run ID: ICPMS03_234348	SeqNo: 2850845		PrepDate: 07-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.005476	0.00500			0.005511 0.637 25
Barium	0.02518	0.00500			0.02608 3.51 25
Chromium	0.00128	0.00500			0.001046 0 25 J
Iron	0.1137	0.200			0.1178 0 25 J
Lead	U	0.00500			0.0005028 0 25
Manganese	0.08653	0.00500			0.08994 3.86 25
Nickel	0.003643	0.00500			0.003916 0 25 J
Selenium	0.008136	0.00500			0.008582 5.34 25
Vanadium	0.05183	0.00500			0.0534 2.98 25

DUP	Sample ID: HS14041271-04DUP	Units: mg/L		Analysis Date: 26-May-2014 20:30	
Client ID:	Run ID: ICPMS03_234348	SeqNo: 2850801		PrepDate: 07-May-2014	DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Calcium	392.1	5.00			389.8 0.588 25
Sodium	308.4	2.00			307.3 0.357 25

PDS	Sample ID: HS14041271-04BS	Units: mg/L		Analysis Date: 27-May-2014 00:33	
Client ID:	Run ID: ICPMS03_234348	SeqNo: 2850849		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.109	0.00500	0.1	0.005511 103	75 - 125
Barium	0.1264	0.00500	0.1	0.02608 100	75 - 125
Chromium	0.09511	0.00500	0.1	0.001046 94.1	75 - 125
Iron	9.483	0.200	10	0.1178 93.7	75 - 125
Lead	0.09818	0.00500	0.1	0.0005028 97.7	75 - 125
Manganese	0.181	0.00500	0.1	0.08994 91.1	75 - 125
Nickel	0.09613	0.00500	0.1	0.003916 92.2	75 - 125
Selenium	0.1091	0.00500	0.1	0.008582 101	75 - 125
Vanadium	0.1492	0.00500	0.1	0.0534 95.8	75 - 125

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81701		Instrument: ICPMS03		Method: SW6020	
PDS	Sample ID: HS14041271-04BS	Units: mg/L		Analysis Date: 26-May-2014 20:39	
Client ID:	Run ID: ICPMS03_234348	SeqNo: 2850803		PrepDate:	DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Calcium	482.8	5.00	100	389.8 93.0	75 - 125
Sodium	413.2	2.00	100	307.3 106	75 - 125

SD	Sample ID: HS14041271-04 DIL SX	Units: mg/L		Analysis Date: 27-May-2014 00:19	
Client ID:	Run ID: ICPMS03_234348	SeqNo: 2850846		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Arsenic	0.005955	0.0250			0.005511 0 10 J
Barium	0.02556	0.0250			0.02608 2.01 10
Chromium	U	0.0250			0.001046 0 10
Iron	U	1.00			0.1178 0 10
Lead	U	0.0250			0.0005028 0 10
Manganese	0.09365	0.0250			0.08994 4.12 10
Nickel	0.004302	0.0250			0.003916 0 10 J
Selenium	0.01412	0.0250			0.008582 0 10 J
Vanadium	0.0542	0.0250			0.0534 1.5 10

SD	Sample ID: HS14041271-04 DIL SX	Units: mg/L		Analysis Date: 26-May-2014 20:35	
Client ID:	Run ID: ICPMS03_234348	SeqNo: 2850802		PrepDate:	DF: 50
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Calcium	404.9	25.0			389.8 3.87 10
Sodium	334.6	10.0			307.3 8.88 10

The following samples were analyzed in this batch:

HS14041068-23	HS14041068-25	HS14041068-27	HS14041068-29
HS14041068-31	HS14041068-33	HS14041068-35	HS14041068-37
HS14041068-39	HS14041068-41	HS14041068-43	HS14041068-45
HS14041068-47			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R232988		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140429	Units: ug/L		Analysis Date: 30-Apr-2014 16:37					
Client ID:	Run ID: VOA6_232988	SeqNo: 2818215		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	U	5.0							
1,1,2,2-Tetrachloroethane	U	5.0							
1,1,2-Trichloroethane	U	5.0							
1,1-Dichloroethane	U	5.0							
1,1-Dichloroethene	U	5.0							
1,2,4-Trimethylbenzene	U	5.0							
1,2-Dibromoethane	U	5.0							
1,2-Dichloroethane	U	5.0							
1,2-Dichloropropane	U	5.0							
1,3,5-Trimethylbenzene	U	5.0							
2-Butanone	U	10							
2-Hexanone	U	10							
4-Isopropyltoluene	U	5.0							
4-Methyl-2-pentanone	U	10							
Acetone	U	10							
Benzene	U	5.0							
Bromodichloromethane	U	5.0							
Bromoform	U	5.0							
Bromomethane	U	5.0							
Carbon disulfide	U	10							
Carbon tetrachloride	U	5.0							
Chlorobenzene	U	5.0							
Chloroethane	U	5.0							
Chloroform	U	5.0							
Chloromethane	U	5.0							
cis-1,2-Dichloroethene	U	5.0							
cis-1,3-Dichloropropene	U	5.0							
Dibromochloromethane	U	5.0							
Ethylbenzene	U	5.0							
Isopropylbenzene	U	5.0							
m,p-Xylene	U	10							
Methyl tert-butyl ether	U	5.0							
Methylene chloride	U	10							
Naphthalene	U	5.0							

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R232988		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140429	Units: ug/L		Analysis Date: 30-Apr-2014 16:37					
Client ID:	Run ID: VOA6_232988	SeqNo: 2818215		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
n-Butylbenzene	U	5.0							
n-Propylbenzene	U	5.0							
o-Xylene	U	5.0							
sec-Butylbenzene	U	5.0							
Styrene	U	5.0							
Tetrachloroethene	U	5.0							
Toluene	U	5.0							
trans-1,2-Dichloroethene	U	5.0							
trans-1,3-Dichloropropene	U	5.0							
Trichloroethene	U	5.0							
Vinyl chloride	U	2.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	52.87	5.0	50	0	106	70 - 125			
Surr: 4-Bromofluorobenzene	50.2	5.0	50	0	100	72 - 125			
Surr: Dibromofluoromethane	51.52	5.0	50	0	103	71 - 125			
Surr: Toluene-d8	48.43	5.0	50	0	96.9	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R232988		Instrument: VOA6		Method: SW8260	
LCS		Sample ID: VLCSW-140429	Units: ug/L	Analysis Date: 30-Apr-2014 15:49	
Client ID:		Run ID: VOA6_232988	SeqNo: 2818214	PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
1,1,1-Trichloroethane	48.67	5.0	50	0 97.3	80 - 120
1,1,2,2-Tetrachloroethane	46.58	5.0	50	0 93.2	72 - 120
1,1,2-Trichloroethane	46.81	5.0	50	0 93.6	80 - 120
1,1-Dichloroethane	48.53	5.0	50	0 97.1	76 - 120
1,1-Dichloroethene	47.86	5.0	50	0 95.7	73 - 124
1,2,4-Trimethylbenzene	45.55	5.0	50	0 91.1	68 - 123
1,2-Dibromoethane	47.72	5.0	50	0 95.4	80 - 120
1,2-Dichloroethane	47.36	5.0	50	0 94.7	78 - 120
1,2-Dichloropropane	48.21	5.0	50	0 96.4	80 - 120
1,3,5-Trimethylbenzene	45.92	5.0	50	0 91.8	80 - 120
2-Butanone	105.2	10	100	0 105	58 - 132
2-Hexanone	101	10	100	0 101	61 - 130
4-Isopropyltoluene	46.16	5.0	50	0 92.3	79 - 120
4-Methyl-2-pentanone	99.84	10	100	0 99.8	65 - 127
Acetone	123.3	10	100	0 123	59 - 137
Benzene	45.65	5.0	50	0 91.3	73 - 121
Bromodichloromethane	49.51	5.0	50	0 99.0	75 - 125
Bromoform	48.99	5.0	50	0 98.0	70 - 130
Bromomethane	41.67	5.0	50	0 83.3	60 - 145
Carbon disulfide	95.77	10	100	0 95.8	68 - 141
Carbon tetrachloride	45.11	5.0	50	0 90.2	75 - 125
Chlorobenzene	45.48	5.0	50	0 91.0	80 - 120
Chloroethane	47.02	5.0	50	0 94.0	70 - 130
Chloroform	47.73	5.0	50	0 95.5	70 - 130
Chloromethane	43.84	5.0	50	0 87.7	67 - 123
cis-1,2-Dichloroethene	49.31	5.0	50	0 98.6	78 - 120
cis-1,3-Dichloropropene	49.91	5.0	50	0 99.8	80 - 120
Dibromochloromethane	47.87	5.0	50	0 95.7	80 - 120
Ethylbenzene	46.11	5.0	50	0 92.2	80 - 120
Isopropylbenzene	46.25	5.0	50	0 92.5	75 - 130
m,p-Xylene	92.15	10	100	0 92.1	78 - 121
Methyl tert-butyl ether	50.26	5.0	50	0 101	70 - 125
Methylene chloride	47.47	10	50	0 94.9	65 - 133
Naphthalene	51.26	5.0	50	0 103	65 - 135

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R232988		Instrument: VOA6		Method: SW8260	
LCS		Sample ID: VLCSW-140429	Units: ug/L		Analysis Date: 30-Apr-2014 15:49
Client ID:		Run ID: VOA6_232988	SeqNo: 2818214		PrepDate: DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
n-Butylbenzene	49.42	5.0	50	0 98.8	77 - 120
n-Propylbenzene	46.33	5.0	50	0 92.7	78 - 120
o-Xylene	45.87	5.0	50	0 91.7	80 - 120
sec-Butylbenzene	45.42	5.0	50	0 90.8	78 - 120
Styrene	47.43	5.0	50	0 94.9	80 - 120
Tetrachloroethene	44.84	5.0	50	0 89.7	79 - 120
Toluene	44.46	5.0	50	0 88.9	80 - 120
trans-1,2-Dichloroethene	48.74	5.0	50	0 97.5	78 - 120
trans-1,3-Dichloropropene	51.65	5.0	50	0 103	80 - 120
Trichloroethene	48.05	5.0	50	0 96.1	80 - 120
Vinyl chloride	48.31	2.0	50	0 96.6	70 - 127
Xylenes, Total	138	15	150	0 92.0	80 - 120
Surr: 1,2-Dichloroethane-d4	52.36	5.0	50	0 105	70 - 125
Surr: 4-Bromofluorobenzene	50.54	5.0	50	0 101	72 - 125
Surr: Dibromofluoromethane	51.4	5.0	50	0 103	71 - 125
Surr: Toluene-d8	48.96	5.0	50	0 97.9	75 - 125

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R232988		Instrument: VOA6		Method: SW8260	
MS	Sample ID: HS14041142-01MS	Units: ug/L		Analysis Date: 01-May-2014 00:14	
Client ID:	Run ID: VOA6_232988	SeqNo: 2818227		PrepDate:	DF: 25
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
1,1,1-Trichloroethane	1305	120	1250	0 104	80 - 120
1,1,2,2-Tetrachloroethane	1110	120	1250	0 88.8	72 - 120
1,1,2-Trichloroethane	1168	120	1250	0 93.5	80 - 120
1,1-Dichloroethane	1261	120	1250	0 101	76 - 120
1,1-Dichloroethene	1312	120	1250	0 105	73 - 124
1,2,4-Trimethylbenzene	1141	120	1250	0 91.3	68 - 123
1,2-Dibromoethane	1204	120	1250	0 96.3	80 - 120
1,2-Dichloroethane	1186	120	1250	0 94.8	78 - 120
1,2-Dichloropropane	1236	120	1250	0 98.9	80 - 120
1,3,5-Trimethylbenzene	1143	120	1250	0 91.4	80 - 120
2-Butanone	2514	250	2500	0 101	58 - 132
2-Hexanone	2446	250	2500	0 97.9	61 - 130
4-Isopropyltoluene	1152	120	1250	0 92.2	79 - 120
4-Methyl-2-pentanone	2458	250	2500	0 98.3	65 - 127
Acetone	2932	250	2500	0 117	59 - 137
Benzene	1155	120	1250	0 92.4	73 - 121
Bromodichloromethane	1267	120	1250	0 101	75 - 125
Bromoform	1203	120	1250	0 96.3	70 - 130
Bromomethane	959.8	120	1250	0 76.8	60 - 145
Carbon disulfide	2595	250	2500	0 104	68 - 141
Carbon tetrachloride	1198	120	1250	0 95.8	75 - 125
Chlorobenzene	1161	120	1250	0 92.8	80 - 120
Chloroethane	1253	120	1250	0 100	70 - 130
Chloroform	2313	120	1250	1056 101	70 - 130
Chloromethane	1153	120	1250	0 92.2	67 - 123
cis-1,2-Dichloroethene	1277	120	1250	0 102	78 - 120
cis-1,3-Dichloropropene	1235	120	1250	0 98.8	80 - 120
Dibromochloromethane	1198	120	1250	0 95.9	80 - 120
Ethylbenzene	1184	120	1250	0 94.7	80 - 120
Isopropylbenzene	1211	120	1250	0 96.9	75 - 130
m,p-Xylene	2371	250	2500	0 94.9	78 - 121
Methyl tert-butyl ether	1247	120	1250	0 99.7	70 - 125
Methylene chloride	1208	250	1250	0 96.6	65 - 133
Naphthalene	1159	120	1250	0 92.7	65 - 135

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R232988		Instrument: VOA6		Method: SW8260	
MS	Sample ID: HS14041142-01MS	Units: ug/L		Analysis Date: 01-May-2014 00:14	
Client ID:	Run ID: VOA6_232988	SeqNo: 2818227		PrepDate:	DF: 25
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
n-Butylbenzene	1223	120	1250	0 97.8	77 - 120
n-Propylbenzene	1172	120	1250	0 93.8	78 - 120
o-Xylene	1188	120	1250	0 95.0	80 - 120
sec-Butylbenzene	1148	120	1250	0 91.9	78 - 120
Styrene	1205	120	1250	0 96.4	80 - 120
Tetrachloroethene	1436	120	1250	0 115	79 - 120
Toluene	1151	120	1250	0 92.0	80 - 120
trans-1,2-Dichloroethene	1270	120	1250	0 102	78 - 120
trans-1,3-Dichloropropene	1236	120	1250	0 98.9	80 - 120
Trichloroethene	1250	120	1250	0 100	80 - 120
Vinyl chloride	1335	50	1250	0 107	70 - 127
Xylenes, Total	3559	380	3750	0 94.9	80 - 120
Surr: 1,2-Dichloroethane-d4	1288	120	1250	0 103	70 - 125
Surr: 4-Bromofluorobenzene	1271	120	1250	0 102	72 - 125
Surr: Dibromofluoromethane	1282	120	1250	0 103	71 - 125
Surr: Toluene-d8	1217	120	1250	0 97.4	75 - 125

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R232988		Instrument: VOA6		Method: SW8260						
MSD		Sample ID: HS14041142-01MSD		Units: ug/L		Analysis Date: 01-May-2014 00:39				
Client ID:		Run ID: VOA6_232988		SeqNo: 2818228		PrepDate:		DF: 25		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1308	120	1250	0	105	80 - 120	1305	0.243	20	
1,1,2,2-Tetrachloroethane	1152	120	1250	0	92.1	72 - 120	1110	3.68	20	
1,1,2-Trichloroethane	1190	120	1250	0	95.2	80 - 120	1168	1.85	20	
1,1-Dichloroethane	1287	120	1250	0	103	76 - 120	1261	2	20	
1,1-Dichloroethene	1346	120	1250	0	108	73 - 124	1312	2.56	20	
1,2,4-Trimethylbenzene	1177	120	1250	0	94.1	68 - 123	1141	3.04	20	
1,2-Dibromoethane	1185	120	1250	0	94.8	80 - 120	1204	1.6	20	
1,2-Dichloroethane	1205	120	1250	0	96.4	78 - 120	1186	1.61	20	
1,2-Dichloropropane	1227	120	1250	0	98.2	80 - 120	1236	0.699	20	
1,3,5-Trimethylbenzene	1189	120	1250	0	95.1	80 - 120	1143	3.99	20	
2-Butanone	2585	250	2500	0	103	58 - 132	2514	2.79	20	
2-Hexanone	2530	250	2500	0	101	61 - 130	2446	3.35	20	
4-Isopropyltoluene	1201	120	1250	0	96.1	79 - 120	1152	4.15	20	
4-Methyl-2-pentanone	2539	250	2500	0	102	65 - 127	2458	3.25	20	
Acetone	2957	250	2500	0	118	59 - 137	2932	0.847	20	
Benzene	1179	120	1250	0	94.3	73 - 121	1155	2.04	20	
Bromodichloromethane	1286	120	1250	0	103	75 - 125	1267	1.44	20	
Bromoform	1217	120	1250	0	97.3	70 - 130	1203	1.09	20	
Bromomethane	1103	120	1250	0	88.3	60 - 145	959.8	13.9	20	
Carbon disulfide	2582	250	2500	0	103	68 - 141	2595	0.493	20	
Carbon tetrachloride	1234	120	1250	0	98.8	75 - 125	1198	2.99	20	
Chlorobenzene	1173	120	1250	0	93.9	80 - 120	1161	1.09	20	
Chloroethane	1247	120	1250	0	99.7	76 - 121	1253	0.511	20	
Chloroform	2319	120	1250	1056	101	70 - 130	2313	0.255	20	
Chloromethane	1182	120	1250	0	94.6	67 - 123	1153	2.51	20	
cis-1,2-Dichloroethene	1289	120	1250	0	103	78 - 120	1277	0.952	20	
cis-1,3-Dichloropropene	1252	120	1250	0	100	80 - 120	1235	1.32	20	
Dibromochloromethane	1206	120	1250	0	96.5	80 - 120	1198	0.6	20	
Ethylbenzene	1209	120	1250	0	96.7	80 - 120	1184	2.14	20	
Isopropylbenzene	1213	120	1250	0	97.0	75 - 130	1211	0.117	20	
m,p-Xylene	2399	250	2500	0	95.9	78 - 121	2371	1.14	20	
Methyl tert-butyl ether	1266	120	1250	0	101	70 - 125	1247	1.54	20	
Methylene chloride	1222	250	1250	0	97.8	65 - 133	1208	1.22	20	
Naphthalene	1273	120	1250	0	102	65 - 135	1159	9.39	20	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R232988		Instrument: VOA6		Method: SW8260						
MSD		Sample ID: HS14041142-01MSD		Units: ug/L		Analysis Date: 01-May-2014 00:39				
Client ID:		Run ID: VOA6_232988		SeqNo: 2818228		PrepDate:		DF: 25		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
n-Butylbenzene	1265	120	1250	0	101	77 - 120	1223	3.4	20	
n-Propylbenzene	1201	120	1250	0	96.1	78 - 120	1172	2.45	20	
o-Xylene	1185	120	1250	0	94.8	80 - 120	1188	0.285	20	
sec-Butylbenzene	1203	120	1250	0	96.2	78 - 120	1148	4.64	20	
Styrene	1220	120	1250	0	97.6	80 - 120	1205	1.21	20	
Tetrachloroethene	1492	120	1250	0	119	79 - 120	1436	3.87	20	
Toluene	1158	120	1250	0	92.6	80 - 120	1151	0.653	20	
trans-1,2-Dichloroethene	1308	120	1250	0	105	78 - 120	1270	2.98	20	
trans-1,3-Dichloropropene	1264	120	1250	0	101	80 - 120	1236	2.23	20	
Trichloroethene	1272	120	1250	0	102	80 - 120	1250	1.73	20	
Vinyl chloride	1332	50	1250	0	107	70 - 127	1335	0.228	20	
Xylenes, Total	3583	380	3750	0	95.5	78 - 121	3559	0.665	20	
Surr: 1,2-Dichloroethane-d4	1310	120	1250	0	105	70 - 125	1288	1.73	20	
Surr: 4-Bromofluorobenzene	1275	120	1250	0	102	72 - 125	1271	0.296	20	
Surr: Dibromofluoromethane	1300	120	1250	0	104	71 - 125	1282	1.39	20	
Surr: Toluene-d8	1227	120	1250	0	98.2	75 - 125	1217	0.776	20	
The following samples were anayzed in this batch:		HS14041068-01		HS14041068-05		HS14041068-09		HS14041068-11		
		HS14041068-13		HS14041068-15		HS14041068-17		HS14041068-23		
		HS14041068-35								

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233156		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140502	Units: ug/L		Analysis Date: 02-May-2014 14:33					
Client ID:	Run ID: VOA6_233156	SeqNo: 2822484		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	U	5.0							
1,1,2,2-Tetrachloroethane	U	5.0							
1,1,2-Trichloroethane	U	5.0							
1,1-Dichloroethane	U	5.0							
1,1-Dichloroethene	U	5.0							
1,2,4-Trimethylbenzene	U	5.0							
1,2-Dibromoethane	U	5.0							
1,2-Dichloroethane	U	5.0							
1,2-Dichloropropane	U	5.0							
1,3,5-Trimethylbenzene	U	5.0							
2-Butanone	U	10							
2-Hexanone	U	10							
4-Isopropyltoluene	U	5.0							
4-Methyl-2-pentanone	U	10							
Acetone	U	10							
Benzene	U	5.0							
Bromodichloromethane	U	5.0							
Bromoform	U	5.0							
Bromomethane	U	5.0							
Carbon disulfide	U	10							
Carbon tetrachloride	U	5.0							
Chlorobenzene	U	5.0							
Chloroethane	U	5.0							
Chloroform	U	5.0							
Chloromethane	U	5.0							
cis-1,2-Dichloroethene	U	5.0							
cis-1,3-Dichloropropene	U	5.0							
Dibromochloromethane	U	5.0							
Ethylbenzene	U	5.0							
Isopropylbenzene	U	5.0							
m,p-Xylene	U	10							
Methyl tert-butyl ether	U	5.0							
Methylene chloride	U	10							
Naphthalene	U	5.0							

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233156		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140502	Units: ug/L		Analysis Date: 02-May-2014 14:33					
Client ID:	Run ID: VOA6_233156	SeqNo: 2822484		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
n-Butylbenzene	U	5.0							
n-Propylbenzene	U	5.0							
o-Xylene	U	5.0							
sec-Butylbenzene	U	5.0							
Styrene	U	5.0							
Tetrachloroethene	U	5.0							
Toluene	U	5.0							
trans-1,2-Dichloroethene	U	5.0							
trans-1,3-Dichloropropene	U	5.0							
Trichloroethene	U	5.0							
Vinyl chloride	U	2.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	52.33	5.0	50	0	105	70 - 125			
Surr: 4-Bromofluorobenzene	49.35	5.0	50	0	98.7	72 - 125			
Surr: Dibromofluoromethane	52.45	5.0	50	0	105	71 - 125			
Surr: Toluene-d8	47.16	5.0	50	0	94.3	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233156		Instrument: VOA6		Method: SW8260						
LCS	Sample ID: VLCSW-140502	Units: ug/L			Analysis Date: 02-May-2014 13:45					
Client ID:	Run ID: VOA6_233156	SeqNo: 2822483			PrepDate:			DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
1,1,1-Trichloroethane	53.31	5.0	50	0	107	80 - 120				
1,1,2,2-Tetrachloroethane	47.36	5.0	50	0	94.7	72 - 120				
1,1,2-Trichloroethane	48.21	5.0	50	0	96.4	80 - 120				
1,1-Dichloroethane	52.24	5.0	50	0	104	76 - 120				
1,1-Dichloroethene	53.11	5.0	50	0	106	73 - 124				
1,2,4-Trimethylbenzene	50.24	5.0	50	0	100	68 - 123				
1,2-Dibromoethane	49.37	5.0	50	0	98.7	80 - 120				
1,2-Dichloroethane	50.74	5.0	50	0	101	78 - 120				
1,2-Dichloropropane	50.44	5.0	50	0	101	80 - 120				
1,3,5-Trimethylbenzene	51.04	5.0	50	0	102	80 - 120				
2-Butanone	107.6	10	100	0	108	58 - 132				
2-Hexanone	100.3	10	100	0	100	61 - 130				
4-Isopropyltoluene	54.51	5.0	50	0	109	79 - 120				
4-Methyl-2-pentanone	100.5	10	100	0	100	65 - 127				
Acetone	119.7	10	100	0	120	59 - 137				
Benzene	48.07	5.0	50	0	96.1	73 - 121				
Bromodichloromethane	51.84	5.0	50	0	104	75 - 125				
Bromoform	50.86	5.0	50	0	102	70 - 130				
Bromomethane	45.95	5.0	50	0	91.9	60 - 145				
Carbon disulfide	102.7	10	100	0	103	68 - 141				
Carbon tetrachloride	49.67	5.0	50	0	99.3	75 - 125				
Chlorobenzene	47.75	5.0	50	0	95.5	80 - 120				
Chloroethane	49.95	5.0	50	0	99.9	70 - 130				
Chloroform	51.75	5.0	50	0	103	70 - 130				
Chloromethane	50.49	5.0	50	0	101	67 - 123				
cis-1,2-Dichloroethene	51.1	5.0	50	0	102	78 - 120				
cis-1,3-Dichloropropene	53.39	5.0	50	0	107	80 - 120				
Dibromochloromethane	48.85	5.0	50	0	97.7	80 - 120				
Ethylbenzene	49.28	5.0	50	0	98.6	80 - 120				
Isopropylbenzene	51.1	5.0	50	0	102	75 - 130				
m,p-Xylene	97.56	10	100	0	97.6	78 - 121				
Methyl tert-butyl ether	52.59	5.0	50	0	105	70 - 125				
Methylene chloride	49.24	10	50	0	98.5	65 - 133				
Naphthalene	51.99	5.0	50	0	104	65 - 135				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233156		Instrument: VOA6		Method: SW8260	
LCS		Sample ID: VLCSW-140502		Units: ug/L	
Client ID:		Run ID: VOA6_233156		SeqNo: 2822483	
Analyte		Result		Analysis Date: 02-May-2014 13:45	
		PQL		PrepDate: DF: 1	
		SPK Val		SPK Ref Value %REC	
				Control Limit	
				RPD Ref Value %RPD	
				RPD Limit Qual	
n-Butylbenzene		59.51		77 - 120	
n-Propylbenzene		51.15		78 - 120	
o-Xylene		48.7		80 - 120	
sec-Butylbenzene		54.69		78 - 120	
Styrene		50.26		80 - 120	
Tetrachloroethene		49.47		79 - 120	
Toluene		46.98		80 - 120	
trans-1,2-Dichloroethene		52.22		78 - 120	
trans-1,3-Dichloropropene		53.31		80 - 120	
Trichloroethene		50.96		80 - 120	
Vinyl chloride		52.63		70 - 127	
Xylenes, Total		146.3		80 - 120	
Surr: 1,2-Dichloroethane-d4		52.38		70 - 125	
Surr: 4-Bromofluorobenzene		50.92		72 - 125	
Surr: Dibromofluoromethane		51.83		71 - 125	
Surr: Toluene-d8		48.69		75 - 125	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233156		Instrument: VOA6		Method: SW8260						
MS	Sample ID: HS14041076-04MS	Units: ug/L			Analysis Date: 02-May-2014 18:13					
Client ID:	Run ID: VOA6_233156	SeqNo: 2822493			PrepDate:		DF: 10			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	510.3	50	500	0	102	80 - 120				
1,1,2,2-Tetrachloroethane	442.9	50	500	0	88.6	72 - 120				
1,1,2-Trichloroethane	461.5	50	500	0	92.3	80 - 120				
1,1-Dichloroethane	504.7	50	500	0	101	76 - 120				
1,1-Dichloroethene	502.6	50	500	0	101	73 - 124				
1,2,4-Trimethylbenzene	488.3	50	500	22.6	93.1	68 - 123				
1,2-Dibromoethane	460.1	50	500	0	92.0	80 - 120				
1,2-Dichloroethane	478.2	50	500	12.53	93.1	78 - 120				
1,2-Dichloropropane	480.5	50	500	0	96.1	80 - 120				
1,3,5-Trimethylbenzene	478.8	50	500	8.672	94.0	80 - 120				
2-Butanone	1012	100	1000	0	101	58 - 132				
2-Hexanone	965.8	100	1000	24.4	94.1	61 - 130				
4-Isopropyltoluene	513.3	50	500	13.08	100	79 - 120				
4-Methyl-2-pentanone	981	100	1000	14.91	96.6	65 - 127				
Acetone	1038	100	1000	108.9	92.9	59 - 137				
Benzene	866.4	50	500	425	88.3	73 - 121				
Bromodichloromethane	494.7	50	500	0	98.9	75 - 125				
Bromoform	463.3	50	500	0	92.7	70 - 130				
Bromomethane	416.5	50	500	0	83.3	60 - 145				
Carbon disulfide	996.8	100	1000	0	99.7	68 - 141				
Carbon tetrachloride	480.2	50	500	0	96.0	75 - 125				
Chlorobenzene	453.3	50	500	0	90.7	80 - 120				
Chloroethane	473.2	50	500	0	94.6	70 - 130				
Chloroform	494	50	500	0	98.8	70 - 130				
Chloromethane	456.8	50	500	0	91.4	67 - 123				
cis-1,2-Dichloroethene	488.7	50	500	0	97.7	78 - 120				
cis-1,3-Dichloropropene	494.3	50	500	0	98.9	80 - 120				
Dibromochloromethane	464.4	50	500	0	92.9	80 - 120				
Ethylbenzene	490.3	50	500	25.03	93.1	80 - 120				
Isopropylbenzene	500	50	500	13.91	97.2	75 - 130				
m,p-Xylene	953.7	100	1000	14.26	93.9	78 - 121				
Methyl tert-butyl ether	504.5	50	500	0	101	70 - 125				
Methylene chloride	485.9	100	500	0	97.2	65 - 133				
Naphthalene	481.9	50	500	43.86	87.6	65 - 135				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233156		Instrument: VOA6		Method: SW8260	
MS	Sample ID: HS14041076-04MS	Units: ug/L		Analysis Date: 02-May-2014 18:13	
Client ID:	Run ID: VOA6_233156	SeqNo: 2822493		PrepDate:	DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
n-Butylbenzene	569.4	50	500	24.43 109	77 - 120
n-Propylbenzene	509.4	50	500	25.88 96.7	78 - 120
o-Xylene	468.9	50	500	14.27 90.9	80 - 120
sec-Butylbenzene	516.3	50	500	17.49 99.8	78 - 120
Styrene	475.1	50	500	0 95.0	80 - 120
Tetrachloroethene	477.4	50	500	0 95.5	79 - 120
Toluene	453.2	50	500	4.285 89.8	80 - 120
trans-1,2-Dichloroethene	494.3	50	500	0 98.9	78 - 120
trans-1,3-Dichloropropene	498.3	50	500	0 99.7	80 - 120
Trichloroethene	491.6	50	500	0 98.3	80 - 120
Vinyl chloride	504.8	20	500	0 101	70 - 127
Xylenes, Total	1423	150	1500	28.54 92.9	80 - 120
Surr: 1,2-Dichloroethane-d4	516.4	50	500	0 103	70 - 125
Surr: 4-Bromofluorobenzene	513.7	50	500	0 103	72 - 125
Surr: Dibromofluoromethane	520	50	500	0 104	71 - 125
Surr: Toluene-d8	488.2	50	500	0 97.6	75 - 125

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233156		Instrument: VOA6		Method: SW8260					
MSD		Sample ID: HS14041076-04MSD		Units: ug/L		Analysis Date: 02-May-2014 18:37			
Client ID:		Run ID: VOA6_233156		SeqNo: 2822494		PrepDate:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	510.9	50	500	0	102	80 - 120	510.3	0.114	20
1,1,2,2-Tetrachloroethane	445.5	50	500	0	89.1	72 - 120	442.9	0.589	20
1,1,2-Trichloroethane	455.5	50	500	0	91.1	80 - 120	461.5	1.31	20
1,1-Dichloroethane	500.3	50	500	0	100	76 - 120	504.7	0.861	20
1,1-Dichloroethene	514.5	50	500	0	103	73 - 124	502.6	2.33	20
1,2,4-Trimethylbenzene	496.6	50	500	22.6	94.8	68 - 123	488.3	1.7	20
1,2-Dibromoethane	455.5	50	500	0	91.1	80 - 120	460.1	1.01	20
1,2-Dichloroethane	482.3	50	500	12.53	94.0	78 - 120	478.2	0.846	20
1,2-Dichloropropane	485.6	50	500	0	97.1	80 - 120	480.5	1.05	20
1,3,5-Trimethylbenzene	486.8	50	500	8.672	95.6	80 - 120	478.8	1.65	20
2-Butanone	1051	100	1000	0	105	58 - 132	1012	3.81	20
2-Hexanone	961.4	100	1000	24.4	93.7	61 - 130	965.8	0.461	20
4-Isopropyltoluene	521.6	50	500	13.08	102	79 - 120	513.3	1.6	20
4-Methyl-2-pentanone	970.5	100	1000	14.91	95.6	65 - 127	981	1.07	20
Acetone	1041	100	1000	108.9	93.2	59 - 137	1038	0.294	20
Benzene	851.2	50	500	425	85.2	73 - 121	866.4	1.77	20
Bromodichloromethane	491.7	50	500	0	98.3	75 - 125	494.7	0.611	20
Bromoform	465.6	50	500	0	93.1	70 - 130	463.3	0.503	20
Bromomethane	472.2	50	500	0	94.4	60 - 145	416.5	12.5	20
Carbon disulfide	1005	100	1000	0	101	68 - 141	996.8	0.833	20
Carbon tetrachloride	476.4	50	500	0	95.3	75 - 125	480.2	0.799	20
Chlorobenzene	456.4	50	500	0	91.3	80 - 120	453.3	0.673	20
Chloroethane	479.2	50	500	0	95.8	76 - 121	473.2	1.27	20
Chloroform	495.1	50	500	0	99.0	70 - 130	494	0.23	20
Chloromethane	468.4	50	500	0	93.7	67 - 123	456.8	2.52	20
cis-1,2-Dichloroethene	502.2	50	500	0	100	78 - 120	488.7	2.72	20
cis-1,3-Dichloropropene	497.9	50	500	0	99.6	80 - 120	494.3	0.726	20
Dibromochloromethane	464.2	50	500	0	92.8	80 - 120	464.4	0.0533	20
Ethylbenzene	493.1	50	500	25.03	93.6	80 - 120	490.3	0.565	20
Isopropylbenzene	497.7	50	500	13.91	96.8	75 - 130	500	0.471	20
m,p-Xylene	951.4	100	1000	14.26	93.7	78 - 121	953.7	0.237	20
Methyl tert-butyl ether	499.4	50	500	0	99.9	70 - 125	504.5	1	20
Methylene chloride	482.5	100	500	0	96.5	65 - 133	485.9	0.705	20
Naphthalene	511.7	50	500	43.86	93.6	65 - 135	481.9	6	20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233156		Instrument: VOA6		Method: SW8260						
MSD		Sample ID: HS14041076-04MSD		Units: ug/L		Analysis Date: 02-May-2014 18:37				
Client ID:		Run ID: VOA6_233156		SeqNo: 2822494		PrepDate:		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
n-Butylbenzene	596.7	50	500	24.43	114	77 - 120	569.4	4.69	20	
n-Propylbenzene	512.6	50	500	25.88	97.4	78 - 120	509.4	0.624	20	
o-Xylene	468.8	50	500	14.27	90.9	80 - 120	468.9	0.0289	20	
sec-Butylbenzene	531.8	50	500	17.49	103	78 - 120	516.3	2.97	20	
Styrene	474.5	50	500	0	94.9	80 - 120	475.1	0.126	20	
Tetrachloroethene	476.7	50	500	0	95.3	79 - 120	477.4	0.146	20	
Toluene	443.3	50	500	4.285	87.8	80 - 120	453.2	2.21	20	
trans-1,2-Dichloroethene	506.3	50	500	0	101	78 - 120	494.3	2.41	20	
trans-1,3-Dichloropropene	501.7	50	500	0	100	80 - 120	498.3	0.678	20	
Trichloroethene	490.3	50	500	0	98.1	80 - 120	491.6	0.256	20	
Vinyl chloride	511.8	20	500	0	102	70 - 127	504.8	1.37	20	
Xylenes, Total	1420	150	1500	28.54	92.8	78 - 121	1423	0.168	20	
Surr: 1,2-Dichloroethane-d4	520.1	50	500	0	104	70 - 125	516.4	0.71	20	
Surr: 4-Bromofluorobenzene	506.2	50	500	0	101	72 - 125	513.7	1.46	20	
Surr: Dibromofluoromethane	521.2	50	500	0	104	71 - 125	520	0.232	20	
Surr: Toluene-d8	483.1	50	500	0	96.6	75 - 125	488.2	1.04	20	
The following samples were anayzed in this batch:										
		HS14041068-03		HS14041068-07		HS14041068-19		HS14041068-21		
		HS14041068-25		HS14041068-27		HS14041068-29		HS14041068-31		
		HS14041068-45		HS14041068-47						

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233164		Instrument: VOA1		Method: SW8260	
MBLK	Sample ID: VBLKW-140502	Units: ug/L		Analysis Date: 02-May-2014 15:23	
Client ID:	Run ID: VOA1_233164	SeqNo: 2822570		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Benzene	U	5.0			
Methyl tert-butyl ether	U	5.0			
Surr: 1,2-Dichloroethane-d4	46.59	5.0	50	0 93.2	70 - 125
Surr: 4-Bromofluorobenzene	48.68	5.0	50	0 97.4	72 - 125
Surr: Dibromofluoromethane	48.99	5.0	50	0 98.0	71 - 125
Surr: Toluene-d8	47.9	5.0	50	0 95.8	75 - 125

Ics	Sample ID: VLCSW-140502	Units: ug/L		Analysis Date: 02-May-2014 14:10	
Client ID:	Run ID: VOA1_233164	SeqNo: 2822569		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Benzene	48.39	5.0	50	0 96.8	73 - 121
Methyl tert-butyl ether	54.66	5.0	50	0 109	70 - 125
Surr: 1,2-Dichloroethane-d4	47.41	5.0	50	0 94.8	70 - 125
Surr: 4-Bromofluorobenzene	49.73	5.0	50	0 99.5	72 - 125
Surr: Dibromofluoromethane	49.44	5.0	50	0 98.9	71 - 125
Surr: Toluene-d8	47.43	5.0	50	0 94.9	75 - 125

MS	Sample ID: HS14041068-31MS	Units: ug/L		Analysis Date: 02-May-2014 20:40	
Client ID: MW-98-0414	Run ID: VOA1_233164	SeqNo: 2822571		PrepDate:	DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Benzene	10010	500	5000	5783 84.5	73 - 121
Methyl tert-butyl ether	6411	500	5000	0 128	70 - 125 S
Surr: 1,2-Dichloroethane-d4	4911	500	5000	0 98.2	70 - 125
Surr: 4-Bromofluorobenzene	4991	500	5000	0 99.8	72 - 125
Surr: Dibromofluoromethane	5029	500	5000	0 101	71 - 125
Surr: Toluene-d8	4653	500	5000	0 93.1	75 - 125

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233164		Instrument: VOA1		Method: SW8260						
MSD		Sample ID: HS14041068-31MSD		Units: ug/L		Analysis Date: 02-May-2014 21:05				
Client ID: MW-98-0414		Run ID: VOA1_233164		SeqNo: 2822572		PrepDate:		DF: 100		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	9871	500	5000	5783	81.8	73 - 121	10010	1.39	20	
Methyl tert-butyl ether	6584	500	5000	0	132	70 - 125	6411	2.66	20	S
Surr: 1,2-Dichloroethane-d4	4845	500	5000	0	96.9	70 - 125	4911	1.36	20	
Surr: 4-Bromofluorobenzene	4939	500	5000	0	98.8	72 - 125	4991	1.04	20	
Surr: Dibromofluoromethane	4946	500	5000	0	98.9	71 - 125	5029	1.66	20	
Surr: Toluene-d8	4722	500	5000	0	94.4	75 - 125	4653	1.47	20	
The following samples were analyzed in this batch:		HS14041068-03 HS14041068-29		HS14041068-07 HS14041068-31		HS14041068-19		HS14041068-25		

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233166		Instrument: VOA2		Method: SW8260					
MBLK	Sample ID: VBLKW-140502	Units: ug/L		Analysis Date: 02-May-2014 16:08					
Client ID:	Run ID: VOA2_233166	SeqNo: 2822636		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	U	5.0							
m,p-Xylene	U	10							
o-Xylene	U	5.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	46.15	5.0	50	0	92.3	70 - 125			
Surr: 4-Bromofluorobenzene	46.69	5.0	50	0	93.4	72 - 125			
Surr: Dibromofluoromethane	50.55	5.0	50	0	101	71 - 125			
Surr: Toluene-d8	48.49	5.0	50	0	97.0	75 - 125			

Ics	Sample ID: VLCSW-140502	Units: ug/L		Analysis Date: 02-May-2014 14:59					
Client ID:	Run ID: VOA2_233166	SeqNo: 2822635		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	48.23	5.0	50	0	96.5	73 - 121			
m,p-Xylene	91.64	10	100	0	91.6	78 - 121			
o-Xylene	42.98	5.0	50	0	86.0	80 - 120			
Xylenes, Total	134.6	15	150	0	89.7	80 - 120			
Surr: 1,2-Dichloroethane-d4	44.76	5.0	50	0	89.5	70 - 125			
Surr: 4-Bromofluorobenzene	50.25	5.0	50	0	101	72 - 125			
Surr: Dibromofluoromethane	47.57	5.0	50	0	95.1	71 - 125			
Surr: Toluene-d8	48.23	5.0	50	0	96.5	75 - 125			

MS	Sample ID: HS14041118-02MS	Units: ug/L		Analysis Date: 02-May-2014 17:45					
Client ID:	Run ID: VOA2_233166	SeqNo: 2822638		PrepDate:		DF: 500			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	23310	2500	25000	0	93.2	73 - 121			
m,p-Xylene	44980	5000	50000	1246	87.5	78 - 121			
o-Xylene	21250	2500	25000	4174	68.3	80 - 120			S
Xylenes, Total	66230	7500	75000	5420	81.1	80 - 120			
Surr: 1,2-Dichloroethane-d4	23210	2500	25000	0	92.9	70 - 125			
Surr: 4-Bromofluorobenzene	25980	2500	25000	0	104	72 - 125			
Surr: Dibromofluoromethane	24770	2500	25000	0	99.1	71 - 125			
Surr: Toluene-d8	24560	2500	25000	0	98.2	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233166		Instrument: VOA2		Method: SW8260					
MSD		Sample ID: HS14041118-02MSD		Units: ug/L		Analysis Date: 02-May-2014 18:08			
Client ID:		Run ID: VOA2_233166		SeqNo: 2822639		PrepDate:		DF: 500	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	22700	2500	25000	0	90.8	73 - 121	23310	2.63	20
m,p-Xylene	45640	5000	50000	1246	88.8	78 - 121	44980	1.46	20
o-Xylene	21440	2500	25000	4174	69.1	80 - 120	21250	0.903	20 S
Xylenes, Total	67080	7500	75000	5420	82.2	78 - 121	66230	1.28	20
Surr: 1,2-Dichloroethane-d4	23750	2500	25000	0	95.0	70 - 125	23210	2.26	20
Surr: 4-Bromofluorobenzene	25740	2500	25000	0	103	72 - 125	25980	0.931	20
Surr: Dibromofluoromethane	25000	2500	25000	0	100.0	71 - 125	24770	0.915	20
Surr: Toluene-d8	24430	2500	25000	0	97.7	75 - 125	24560	0.524	20
The following samples were analyzed in this batch:									
HS14041068-21		HS14041068-27		HS14041068-45		HS14041068-47			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233225		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140506	Units: ug/L		Analysis Date: 06-May-2014 11:46					
Client ID:	Run ID: VOA6_233225	SeqNo: 2823789		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	U	5.0							
1,1,2,2-Tetrachloroethane	U	5.0							
1,1,2-Trichloroethane	U	5.0							
1,1-Dichloroethane	U	5.0							
1,1-Dichloroethene	U	5.0							
1,2,4-Trimethylbenzene	U	5.0							
1,2-Dibromoethane	U	5.0							
1,2-Dichloroethane	U	5.0							
1,2-Dichloropropane	U	5.0							
1,3,5-Trimethylbenzene	U	5.0							
2-Butanone	U	10							
2-Hexanone	U	10							
4-Isopropyltoluene	U	5.0							
4-Methyl-2-pentanone	U	10							
Acetone	U	10							
Benzene	U	5.0							
Bromodichloromethane	U	5.0							
Bromoform	U	5.0							
Bromomethane	U	5.0							
Carbon disulfide	U	10							
Carbon tetrachloride	U	5.0							
Chlorobenzene	U	5.0							
Chloroethane	U	5.0							
Chloroform	U	5.0							
Chloromethane	U	5.0							
cis-1,2-Dichloroethene	U	5.0							
cis-1,3-Dichloropropene	U	5.0							
Dibromochloromethane	U	5.0							
Ethylbenzene	U	5.0							
Isopropylbenzene	U	5.0							
m,p-Xylene	U	10							
Methyl tert-butyl ether	U	5.0							
Methylene chloride	U	10							
Naphthalene	U	5.0							

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233225		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140506	Units: ug/L		Analysis Date: 06-May-2014 11:46					
Client ID:	Run ID: VOA6_233225	SeqNo: 2823789		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
n-Butylbenzene	U	5.0							
n-Propylbenzene	U	5.0							
o-Xylene	U	5.0							
sec-Butylbenzene	U	5.0							
Styrene	U	5.0							
Tetrachloroethene	U	5.0							
Toluene	U	5.0							
trans-1,2-Dichloroethene	U	5.0							
trans-1,3-Dichloropropene	U	5.0							
Trichloroethene	U	5.0							
Vinyl chloride	U	2.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	55.27	5.0	50	0	111	70 - 125			
Surr: 4-Bromofluorobenzene	49.75	5.0	50	0	99.5	72 - 125			
Surr: Dibromofluoromethane	53.38	5.0	50	0	107	71 - 125			
Surr: Toluene-d8	50.39	5.0	50	0	101	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233225		Instrument: VOA6		Method: SW8260						
LCS	Sample ID: VLCSW-140506	Units: ug/L			Analysis Date: 06-May-2014 10:58					
Client ID:	Run ID: VOA6_233225	SeqNo: 2823788			PrepDate:			DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
1,1,1-Trichloroethane	51.3	5.0	50	0	103	80 - 120				
1,1,2,2-Tetrachloroethane	49.71	5.0	50	0	99.4	72 - 120				
1,1,2-Trichloroethane	49.06	5.0	50	0	98.1	80 - 120				
1,1-Dichloroethane	48.96	5.0	50	0	97.9	76 - 120				
1,1-Dichloroethene	49.87	5.0	50	0	99.7	73 - 124				
1,2,4-Trimethylbenzene	49.02	5.0	50	0	98.0	68 - 123				
1,2-Dibromoethane	49.43	5.0	50	0	98.9	80 - 120				
1,2-Dichloroethane	49.5	5.0	50	0	99.0	78 - 120				
1,2-Dichloropropane	48.36	5.0	50	0	96.7	80 - 120				
1,3,5-Trimethylbenzene	48.37	5.0	50	0	96.7	80 - 120				
2-Butanone	102	10	100	0	102	58 - 132				
2-Hexanone	99.86	10	100	0	99.9	61 - 130				
4-Isopropyltoluene	49.28	5.0	50	0	98.6	79 - 120				
4-Methyl-2-pentanone	100.5	10	100	0	101	65 - 127				
Acetone	107.2	10	100	0	107	59 - 137				
Benzene	47.03	5.0	50	0	94.1	73 - 121				
Bromodichloromethane	49.75	5.0	50	0	99.5	75 - 125				
Bromoform	53.57	5.0	50	0	107	70 - 130				
Bromomethane	50.5	5.0	50	0	101	60 - 145				
Carbon disulfide	94.59	10	100	0	94.6	68 - 141				
Carbon tetrachloride	53.22	5.0	50	0	106	75 - 125				
Chlorobenzene	47.44	5.0	50	0	94.9	80 - 120				
Chloroethane	48.63	5.0	50	0	97.3	70 - 130				
Chloroform	49.14	5.0	50	0	98.3	70 - 130				
Chloromethane	47.9	5.0	50	0	95.8	67 - 123				
cis-1,2-Dichloroethene	50.11	5.0	50	0	100	78 - 120				
cis-1,3-Dichloropropene	54.02	5.0	50	0	108	80 - 120				
Dibromochloromethane	52.41	5.0	50	0	105	80 - 120				
Ethylbenzene	48	5.0	50	0	96.0	80 - 120				
Isopropylbenzene	48.12	5.0	50	0	96.2	75 - 130				
m,p-Xylene	96.85	10	100	0	96.9	78 - 121				
Methyl tert-butyl ether	53.27	5.0	50	0	107	70 - 125				
Methylene chloride	49.19	10	50	0	98.4	65 - 133				
Naphthalene	48.3	5.0	50	0	96.6	65 - 135				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233225		Instrument: VOA6		Method: SW8260	
LCS		Sample ID: VLCSW-140506		Units: ug/L	
Client ID:		Run ID: VOA6_233225		SeqNo: 2823788	
Analyte		Result		Analysis Date: 06-May-2014 10:58	
		PQL		PrepDate: DF: 1	
		SPK Val		SPK Ref Value %REC	
				Control Limit	
				RPD Ref Value %RPD	
				RPD Limit Qual	
n-Butylbenzene		50.91		77 - 120	
n-Propylbenzene		49.09		78 - 120	
o-Xylene		47.83		80 - 120	
sec-Butylbenzene		48.5		78 - 120	
Styrene		49.83		80 - 120	
Tetrachloroethene		47.76		79 - 120	
Toluene		48.97		80 - 120	
trans-1,2-Dichloroethene		50.82		78 - 120	
trans-1,3-Dichloropropene		47.48		80 - 120	
Trichloroethene		48.82		80 - 120	
Vinyl chloride		50.44		70 - 127	
Xylenes, Total		144.7		80 - 120	
Surr: 1,2-Dichloroethane-d4		52.44		70 - 125	
Surr: 4-Bromofluorobenzene		51.01		72 - 125	
Surr: Dibromofluoromethane		52.04		71 - 125	
Surr: Toluene-d8		50.59		75 - 125	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233225		Instrument: VOA6		Method: SW8260	
MS	Sample ID: HS14041076-02MS	Units: ug/L		Analysis Date: 06-May-2014 12:34	
Client ID:	Run ID: VOA6_233225	SeqNo: 2823791		PrepDate:	DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
1,1,1-Trichloroethane	474.9	50	500	0 95.0	80 - 120
1,1,2,2-Tetrachloroethane	434.1	50	500	0 86.8	72 - 120
1,1,2-Trichloroethane	439	50	500	2.984 87.2	80 - 120
1,1-Dichloroethane	459	50	500	0 91.8	76 - 120
1,1-Dichloroethene	461.5	50	500	0 92.3	73 - 124
1,2,4-Trimethylbenzene	437.1	50	500	7.302 86.0	68 - 123
1,2-Dibromoethane	446.5	50	500	2.457 88.8	80 - 120
1,2-Dichloroethane	445.6	50	500	2.021 88.7	78 - 120
1,2-Dichloropropane	442	50	500	0 88.4	80 - 120
1,3,5-Trimethylbenzene	426	50	500	6.391 83.9	80 - 120
2-Butanone	885	100	1000	18.39 86.7	58 - 132
2-Hexanone	865	100	1000	19.68 84.5	61 - 130
4-Isopropyltoluene	437	50	500	10.64 85.3	79 - 120
4-Methyl-2-pentanone	902.4	100	1000	12.52 89.0	65 - 127
Acetone	849.6	100	1000	55.22 79.4	59 - 137
Benzene	441.2	50	500	2.286 87.8	73 - 121
Bromodichloromethane	460.1	50	500	0 92.0	75 - 125
Bromoform	461.2	50	500	4.38 91.4	70 - 130
Bromomethane	488	50	500	4.709 96.7	60 - 145
Carbon disulfide	858.2	100	1000	16.47 84.2	68 - 141
Carbon tetrachloride	482.4	50	500	1.938 96.1	75 - 125
Chlorobenzene	430.9	50	500	4.083 85.4	80 - 120
Chloroethane	454.2	50	500	2.71 90.3	70 - 130
Chloroform	461.5	50	500	0 92.3	70 - 130
Chloromethane	441.9	50	500	0 88.4	67 - 123
cis-1,2-Dichloroethene	480.7	50	500	0 96.1	78 - 120
cis-1,3-Dichloropropene	497.8	50	500	1.451 99.3	80 - 120
Dibromochloromethane	465.9	50	500	0 93.2	80 - 120
Ethylbenzene	436.3	50	500	3.802 86.5	80 - 120
Isopropylbenzene	438.9	50	500	4.833 86.8	75 - 130
m,p-Xylene	881	100	1000	6.793 87.4	78 - 121
Methyl tert-butyl ether	531.8	50	500	0 106	70 - 125
Methylene chloride	480.7	100	500	11.77 93.8	65 - 133
Naphthalene	399.1	50	500	38.49 72.1	65 - 135

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233225		Instrument: VOA6		Method: SW8260						
MS	Sample ID: HS14041076-02MS	Units: ug/L			Analysis Date: 06-May-2014 12:34					
Client ID:	Run ID: VOA6_233225	SeqNo: 2823791			PrepDate:			DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
n-Butylbenzene	438.5	50	500	14.63	84.8	77 - 120				
n-Propylbenzene	440.4	50	500	6.234	86.8	78 - 120				
o-Xylene	434.3	50	500	3.103	86.2	80 - 120				
sec-Butylbenzene	422.7	50	500	11.91	82.2	78 - 120				
Styrene	451.5	50	500	3.878	89.5	80 - 120				
Tetrachloroethene	425.4	50	500	3.951	84.3	79 - 120				
Toluene	446.7	50	500	2.698	88.8	80 - 120				
trans-1,2-Dichloroethene	479.6	50	500	3.048	95.3	78 - 120				
trans-1,3-Dichloropropene	429.4	50	500	14.68	82.9	80 - 120				
Trichloroethene	436.4	50	500	3.541	86.6	80 - 120				
Vinyl chloride	468.6	20	500	2.18	93.3	70 - 127				
Xylenes, Total	1315	150	1500	6.793	87.2	80 - 120				
Surr: 1,2-Dichloroethane-d4	535.7	50	500	0	107	70 - 125				
Surr: 4-Bromofluorobenzene	512.4	50	500	0	102	72 - 125				
Surr: Dibromofluoromethane	529.4	50	500	0	106	71 - 125				
Surr: Toluene-d8	507.8	50	500	0	102	75 - 125				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233225		Instrument: VOA6		Method: SW8260					
MSD		Sample ID: HS14041076-02MSD		Units: ug/L		Analysis Date: 06-May-2014 12:59			
Client ID:		Run ID: VOA6_233225		SeqNo: 2823792		PrepDate:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	475	50	500	0	95.0	80 - 120	474.9	0.0401	20
1,1,2,2-Tetrachloroethane	468.9	50	500	0	93.8	72 - 120	434.1	7.69	20
1,1,2-Trichloroethane	451.4	50	500	2.984	89.7	80 - 120	439	2.78	20
1,1-Dichloroethane	456.4	50	500	0	91.3	76 - 120	459	0.559	20
1,1-Dichloroethene	457.8	50	500	0	91.6	73 - 124	461.5	0.795	20
1,2,4-Trimethylbenzene	457.3	50	500	7.302	90.0	68 - 123	437.1	4.52	20
1,2-Dibromoethane	459.2	50	500	2.457	91.3	80 - 120	446.5	2.81	20
1,2-Dichloroethane	454.4	50	500	2.021	90.5	78 - 120	445.6	1.95	20
1,2-Dichloropropane	457.1	50	500	0	91.4	80 - 120	442	3.35	20
1,3,5-Trimethylbenzene	453.1	50	500	6.391	89.3	80 - 120	426	6.17	20
2-Butanone	954.3	100	1000	18.39	93.6	58 - 132	885	7.53	20
2-Hexanone	958.4	100	1000	19.68	93.9	61 - 130	865	10.3	20
4-Isopropyltoluene	455.7	50	500	10.64	89.0	79 - 120	437	4.19	20
4-Methyl-2-pentanone	968.3	100	1000	12.52	95.6	65 - 127	902.4	7.04	20
Acetone	889.9	100	1000	55.22	83.5	59 - 137	849.6	4.64	20
Benzene	441.7	50	500	2.286	87.9	73 - 121	441.2	0.102	20
Bromodichloromethane	463.1	50	500	0	92.6	75 - 125	460.1	0.666	20
Bromoform	481.2	50	500	4.38	95.4	70 - 130	461.2	4.26	20
Bromomethane	534.9	50	500	4.709	106	60 - 145	488	9.16	20
Carbon disulfide	861.7	100	1000	16.47	84.5	68 - 141	858.2	0.414	20
Carbon tetrachloride	495.4	50	500	1.938	98.7	75 - 125	482.4	2.67	20
Chlorobenzene	446.7	50	500	4.083	88.5	80 - 120	430.9	3.61	20
Chloroethane	459.4	50	500	2.71	91.3	76 - 121	454.2	1.13	20
Chloroform	460.7	50	500	0	92.1	70 - 130	461.5	0.167	20
Chloromethane	443.9	50	500	0	88.8	67 - 123	441.9	0.464	20
cis-1,2-Dichloroethene	475.8	50	500	0	95.2	78 - 120	480.7	1.01	20
cis-1,3-Dichloropropene	511.1	50	500	1.451	102	80 - 120	497.8	2.63	20
Dibromochloromethane	478.2	50	500	0	95.6	80 - 120	465.9	2.61	20
Ethylbenzene	446.2	50	500	3.802	88.5	80 - 120	436.3	2.26	20
Isopropylbenzene	448.7	50	500	4.833	88.8	75 - 130	438.9	2.22	20
m,p-Xylene	899.7	100	1000	6.793	89.3	78 - 121	881	2.1	20
Methyl tert-butyl ether	533.6	50	500	0	107	70 - 125	531.8	0.32	20
Methylene chloride	471.1	100	500	11.77	91.9	65 - 133	480.7	2.01	20
Naphthalene	459.2	50	500	38.49	84.1	65 - 135	399.1	14	20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233225		Instrument: VOA6		Method: SW8260					
MSD	Sample ID: HS14041076-02MSD	Units: ug/L			Analysis Date: 06-May-2014 12:59				
Client ID:	Run ID: VOA6_233225	SeqNo: 2823792		PrepDate:		DF: 10			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
n-Butylbenzene	472.6	50	500	14.63	91.6	77 - 120	438.5	7.47	20
n-Propylbenzene	458.3	50	500	6.234	90.4	78 - 120	440.4	3.98	20
o-Xylene	445.6	50	500	3.103	88.5	80 - 120	434.3	2.56	20
sec-Butylbenzene	450.9	50	500	11.91	87.8	78 - 120	422.7	6.46	20
Styrene	462.8	50	500	3.878	91.8	80 - 120	451.5	2.46	20
Tetrachloroethene	440.3	50	500	3.951	87.3	79 - 120	425.4	3.44	20
Toluene	456.2	50	500	2.698	90.7	80 - 120	446.7	2.1	20
trans-1,2-Dichloroethene	473.9	50	500	3.048	94.2	78 - 120	479.6	1.2	20
trans-1,3-Dichloropropene	444.6	50	500	14.68	86.0	80 - 120	429.4	3.48	20
Trichloroethene	449.7	50	500	3.541	89.2	80 - 120	436.4	3	20
Vinyl chloride	476.2	20	500	2.18	94.8	70 - 127	468.6	1.62	20
Xylenes, Total	1345	150	1500	6.793	89.2	78 - 121	1315	2.26	20
Surr: 1,2-Dichloroethane-d4	536.5	50	500	0	107	70 - 125	535.7	0.156	20
Surr: 4-Bromofluorobenzene	511	50	500	0	102	72 - 125	512.4	0.276	20
Surr: Dibromofluoromethane	518.5	50	500	0	104	71 - 125	529.4	2.09	20
Surr: Toluene-d8	505	50	500	0	101	75 - 125	507.8	0.566	20
The following samples were analyzed in this batch:									
HS14041068-33		HS14041068-37		HS14041068-39		HS14041068-41			
HS14041068-43		HS14041068-49							

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R232796		Instrument: Balance1		Method: M2540C					
MBLK	Sample ID: WBLK-042814	Units: mg/L		Analysis Date: 28-Apr-2014 18:40					
Client ID:	Run ID: Balance1_232796	SeqNo: 2814510		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)		U	10.0						
LCS	Sample ID: WLCS-042814	Units: mg/L		Analysis Date: 28-Apr-2014 18:40					
Client ID:	Run ID: Balance1_232796	SeqNo: 2814511		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)		1032	10.0	1000	0 103	85 - 115			
DUP	Sample ID: HS14041068-33DUP	Units: mg/L		Analysis Date: 28-Apr-2014 18:40					
Client ID: Dup-11-0414	Run ID: Balance1_232796	SeqNo: 2814509		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)		3620	10.0			3390	6.56	10	
DUP	Sample ID: HS14041068-01DUP	Units: mg/L		Analysis Date: 28-Apr-2014 18:40					
Client ID: MW-50-0414	Run ID: Balance1_232796	SeqNo: 2814492		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)		2660	10.0			2910	8.98	10	
The following samples were analyzed in this batch:									
HS14041068-01		HS14041068-03		HS14041068-05		HS14041068-07			
HS14041068-09		HS14041068-11		HS14041068-13		HS14041068-15			
HS14041068-17		HS14041068-19		HS14041068-21		HS14041068-23			
HS14041068-25		HS14041068-27		HS14041068-29		HS14041068-31			
HS14041068-33									

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R232870		Instrument: Balance1		Method: M2540C					
MBLK	Sample ID: WBLK-042914	Units: mg/L		Analysis Date: 29-Apr-2014 19:00					
Client ID:	Run ID: Balance1_232870	SeqNo: 2816020		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)		U	10.0						
LCS	Sample ID: WLCS-042914	Units: mg/L		Analysis Date: 29-Apr-2014 19:00					
Client ID:	Run ID: Balance1_232870	SeqNo: 2816021		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)		1034	10.0	1000	0 103	85 - 115			
DUP	Sample ID: HS14041146-08DUP	Units: mg/L		Analysis Date: 29-Apr-2014 19:00					
Client ID:	Run ID: Balance1_232870	SeqNo: 2816019		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)		398	10.0			384	3.58	10	
DUP	Sample ID: HS14041068-35DUP	Units: mg/L		Analysis Date: 29-Apr-2014 19:00					
Client ID: MW-59-0414	Run ID: Balance1_232870	SeqNo: 2816004		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)		3560	10.0			3420	4.01	10	
The following samples were analyzed in this batch:									
		HS14041068-35	HS14041068-37	HS14041068-39		HS14041068-41			
		HS14041068-43	HS14041068-45	HS14041068-47					

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233074		Instrument: UV-2450		Method: SW9012	
MBLK	Sample ID: MBLK-233074	Units: mg/L		Analysis Date: 03-May-2014 09:57	
Client ID:	Run ID: UV-2450_233074	SeqNo: 2819891		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	U	0.0200			

LCS	Sample ID: LCS-233074	Units: mg/L		Analysis Date: 03-May-2014 09:57	
Client ID:	Run ID: UV-2450_233074	SeqNo: 2819892		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	0.164	0.0200	0.2	0 82.0	80 - 120

LCSD	Sample ID: LCSD-233074	Units: mg/L		Analysis Date: 03-May-2014 09:57	
Client ID:	Run ID: UV-2450_233074	SeqNo: 2819893		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	0.166	0.0200	0.2	0 83.0	80 - 120 0.164 1.21 20

MS	Sample ID: HS14041068-17MS	Units: mg/L		Analysis Date: 03-May-2014 09:57	
Client ID: EB-14-0414	Run ID: UV-2450_233074	SeqNo: 2819894		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	0.17	0.0200	0.2	0 85.0	80 - 120

The following samples were analyzed in this batch: HS14041068-17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233287		Instrument: ICS2100		Method: E300	
MBLK	Sample ID: WBLKW2	Units: mg/L		Analysis Date: 05-May-2014 23:32	
Client ID:	Run ID: ICS2100_233287	SeqNo: 2825306		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Chloride	U	0.500			
Fluoride	U	0.100			
Sulfate	U	0.500			

LCS	Sample ID: WLCSW2	Units: mg/L		Analysis Date: 05-May-2014 23:47	
Client ID:	Run ID: ICS2100_233287	SeqNo: 2825307		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Chloride	21.62	0.500	20	0 108	90 - 110
Fluoride	3.737	0.100	4	0 93.4	90 - 110
Sulfate	20.39	0.500	20	0 102	90 - 110

MS	Sample ID: HS14041068-47MS	Units: mg/L		Analysis Date: 06-May-2014 03:25	
Client ID: MW-42-0414	Run ID: ICS2100_233287	SeqNo: 2825322		PrepDate:	DF: 50
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Chloride	1403	25.0	500	818.9 117	80 - 120
Fluoride	85.08	5.00	100	0.545 84.5	80 - 120
Sulfate	1477	25.0	500	921.4 111	80 - 120

MSD	Sample ID: HS14041068-47MSD	Units: mg/L		Analysis Date: 06-May-2014 03:40	
Client ID: MW-42-0414	Run ID: ICS2100_233287	SeqNo: 2825323		PrepDate:	DF: 50
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Chloride	1428	25.0	500	818.9 122	80 - 120 1403 1.72 20 S
Fluoride	86.47	5.00	100	0.545 85.9	80 - 120 85.08 1.61 20
Sulfate	1472	25.0	500	921.4 110	80 - 120 1477 0.308 20

The following samples were analyzed in this batch:					
HS14041068-23	HS14041068-25	HS14041068-27	HS14041068-29		
HS14041068-31	HS14041068-33	HS14041068-35	HS14041068-37		
HS14041068-39	HS14041068-41	HS14041068-43	HS14041068-45		
HS14041068-47					

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233295		Instrument: ICS2100		Method: E300	
MBLK	Sample ID: WBLKW2	Units: mg/L		Analysis Date: 03-May-2014 18:22	
Client ID:	Run ID: ICS2100_233295	SeqNo: 2825510		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	U	0.500			
Fluoride	U	0.100			
Sulfate	U	0.500			

LCS	Sample ID: WLCSW2	Units: mg/L		Analysis Date: 03-May-2014 18:36	
Client ID:	Run ID: ICS2100_233295	SeqNo: 2825511		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	21.83	0.500	20	0	109	90 - 110	
Fluoride	3.78	0.100	4	0	94.5	90 - 110	
Sulfate	20.39	0.500	20	0	102	90 - 110	

MS	Sample ID: HS14041068-21MS	Units: mg/L		Analysis Date: 04-May-2014 01:38	
Client ID: MW-43-0414	Run ID: ICS2100_233295	SeqNo: 2825538		PrepDate:	DF: 50
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	1494	25.0	500	886.4	121	80 - 120		S
Fluoride	97.08	5.00	100	1.275	95.8	80 - 120		
Sulfate	819.6	25.0	500	217.9	120	80 - 120		S

MSD	Sample ID: HS14041068-21MSD	Units: mg/L		Analysis Date: 04-May-2014 01:53	
Client ID: MW-43-0414	Run ID: ICS2100_233295	SeqNo: 2825539		PrepDate:	DF: 50
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	1469	25.0	500	886.4	116	80 - 120	1494	1.68	20
Fluoride	96	5.00	100	1.275	94.7	80 - 120	97.08	1.12	20
Sulfate	808.6	25.0	500	217.9	118	80 - 120	819.6	1.35	20

The following samples were analyzed in this batch:		HS14041068-01	HS14041068-03	HS14041068-05	HS14041068-07
		HS14041068-09	HS14041068-11	HS14041068-13	HS14041068-15
		HS14041068-17	HS14041068-19	HS14041068-21	HS14041068-23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233298		Instrument: UV-2450		Method: SW9012	
MBLK	Sample ID: MBLK-233298	Units: mg/L		Analysis Date: 06-May-2014 18:08	
Client ID:	Run ID: UV-2450_233298	SeqNo: 2825580		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	U	0.0200			

LCS	Sample ID: LCS-233298	Units: mg/L		Analysis Date: 06-May-2014 18:08	
Client ID:	Run ID: UV-2450_233298	SeqNo: 2825581		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	0.172	0.0200	0.2	0 86.0	80 - 120

MS	Sample ID: HS14041068-37MS	Units: mg/L		Analysis Date: 06-May-2014 18:08	
Client ID: MW-60-0414	Run ID: UV-2450_233298	SeqNo: 2825582		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	0.032	0.0200	0.2	0.14 -54.0	80 - 120 S

MSD	Sample ID: HS14041068-37MSD	Units: mg/L		Analysis Date: 06-May-2014 18:08	
Client ID: MW-60-0414	Run ID: UV-2450_233298	SeqNo: 2825583		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	0.034	0.0200	0.2	0.14 -53.0	80 - 120 0.032 6.06 25 S

The following samples were analyzed in this batch:					
HS14041068-21		HS14041068-23		HS14041068-37	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233694		Instrument: ICS2100		Method: E300	
MBLK	Sample ID: WBLKW1	Units: mg/L		Analysis Date: 12-May-2014 18:41	
Client ID:	Run ID: ICS2100_233694	SeqNo: 2834832		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	U	0.200			
LCS	Sample ID: WLCSW1	Units: mg/L		Analysis Date: 12-May-2014 19:04	
Client ID:	Run ID: ICS2100_233694	SeqNo: 2834833		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	8.044	0.200	8	0 101	90 - 110
MS	Sample ID: HS14041068-39MS	Units: mg/L		Analysis Date: 13-May-2014 01:08	
Client ID: RW-10-0414	Run ID: ICS2100_233694	SeqNo: 2834858		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	17.56	1.00	20	0 87.8	80 - 120
MSD	Sample ID: HS14041068-39MSD	Units: mg/L		Analysis Date: 13-May-2014 01:22	
Client ID: RW-10-0414	Run ID: ICS2100_233694	SeqNo: 2834859		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	16.97	1.00	20	0 84.8	80 - 120 17.56 3.39 20
The following samples were analyzed in this batch:					
	HS14041068-01	HS14041068-03	HS14041068-05	HS14041068-07	
	HS14041068-09	HS14041068-11	HS14041068-13	HS14041068-15	
	HS14041068-17	HS14041068-19	HS14041068-21	HS14041068-23	
	HS14041068-25	HS14041068-27	HS14041068-29	HS14041068-31	
	HS14041068-33	HS14041068-35	HS14041068-37	HS14041068-39	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14041068
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233724		Instrument: ICS2100		Method: E300	
MBLK	Sample ID: WBLKW	Units: mg/L		Analysis Date: 13-May-2014 09:52	
Client ID:	Run ID: ICS2100_233724	SeqNo: 2835701		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	U	0.200			
LCS	Sample ID: WLCSW	Units: mg/L		Analysis Date: 13-May-2014 10:06	
Client ID:	Run ID: ICS2100_233724	SeqNo: 2835702		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	8.009	0.200	8	0 100	90 - 110
MS	Sample ID: HS14040954-29MS	Units: mg/L		Analysis Date: 13-May-2014 07:41	
Client ID:	Run ID: ICS2100_233724	SeqNo: 2835694		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	27.48	1.00	20	10.06 87.1	80 - 120
MSD	Sample ID: HS14040954-29MSD	Units: mg/L		Analysis Date: 13-May-2014 07:55	
Client ID:	Run ID: ICS2100_233724	SeqNo: 2835695		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	26.86	1.00	20	10.06 84.0	80 - 120 27.48 2.29 20
The following samples were analyzed in this batch:					
HS14041068-41		HS14041068-43		HS14041068-45	
				HS14041068-47	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
WorkOrder: HS14041068

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	AR - 2014	27-Mar-2015
California	2919	31-Jul-2015
Dept of Defense	L2231 Rev 3-20-2014	22-Dec-2015
Illinois	003403	09-May-2015
Kansas	E-10352 8/15/2013-2014	01-Oct-2014
Kentucky	KY 2014-2015	30-Apr-2015
Louisiana	03087 2014/2015	30-Jun-2015
North Carolina	624 - 2014	31-Dec-2014
North Dakota	R-193 2025	30-Apr-2015
Oklahoma	2014-128	31-Aug-2015
Texas	TX104704231-14-13	30-Apr-2015

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Work Order: HS14041068

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS14041068-01	MW-50-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-01	MW-50-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-01	MW-50-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-01	MW-50-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-01	MW-50-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-02	MW-50-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-03	MW-91-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-03	MW-91-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-03	MW-91-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-03	MW-91-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-03	MW-91-0414	Login	25-Apr-14 10:59	DRC	BTEX A1
HS14041068-03	MW-91-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-04	MW-91-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-05	MW-90-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-05	MW-90-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-05	MW-90-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-05	MW-90-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-05	MW-90-0414	Login	25-Apr-14 10:59	DRC	BTEX A1
HS14041068-05	MW-90-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-06	MW-90-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-07	MW-96-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-07	MW-96-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-07	MW-96-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-07	MW-96-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-07	MW-96-0414	Login	25-Apr-14 10:59	DRC	BTEX A1
HS14041068-07	MW-96-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-08	MW-96-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-09	MW-95-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-09	MW-95-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-09	MW-95-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-09	MW-95-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-09	MW-95-0414	Login	25-Apr-14 10:59	DRC	BTEX A1
HS14041068-09	MW-95-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-10	MW-95-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-11	RW-17-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-11	RW-17-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-11	RW-17-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-11	RW-17-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-11	RW-17-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-12	RW-17-0414-D	Login	25-Apr-14 10:59	DRC	19E

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Work Order: HS14041068

SAMPLE TRACKING

HS14041068-13	RW-16-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-13	RW-16-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-13	RW-16-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-13	RW-16-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-13	RW-16-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-14	RW-16-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-15	Dup-10-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-15	Dup-10-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-15	Dup-10-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-15	Dup-10-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-15	Dup-10-0414	Login	25-Apr-14 10:59	DRC	BTEX A1
HS14041068-15	Dup-10-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-16	Dup-10-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-17	EB-14-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-17	EB-14-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-17	EB-14-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-17	EB-14-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-17	EB-14-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-17	EB-14-0414	Login	25-Apr-14 10:59	DRC	BTEX A1
HS14041068-17	EB-14-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-18	EB-14-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-19	MW-93-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-19	MW-93-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-19	MW-93-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-19	MW-93-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-19	MW-93-0414	Login	25-Apr-14 10:59	DRC	BTEX A1
HS14041068-19	MW-93-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-20	MW-93-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-21	MW-43-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-21	MW-43-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-21	MW-43-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-21	MW-43-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-21	MW-43-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-21	MW-43-0414	Login	25-Apr-14 10:59	DRC	BTEX A1
HS14041068-21	MW-43-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-22	MW-43-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-23	EB-15-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-23	EB-15-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-23	EB-15-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-23	EB-15-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-23	EB-15-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-23	EB-15-0414	Login	25-Apr-14 10:59	DRC	BTEX A1

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Work Order: HS14041068

SAMPLE TRACKING

HS14041068-23	EB-15-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-24	EB-15-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-25	MW-23-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-25	MW-23-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-25	MW-23-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-25	MW-23-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-25	MW-23-0414	Login	25-Apr-14 10:59	DRC	BTEX A1
HS14041068-25	MW-23-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-26	MW-23-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-27	MW-62-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-27	MW-62-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-27	MW-62-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-27	MW-62-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-27	MW-62-0414	Login	25-Apr-14 10:59	DRC	BTEX A1
HS14041068-27	MW-62-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-28	MW-62-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-29	MW-106-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-29	MW-106-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-29	MW-106-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-29	MW-106-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-29	MW-106-0414	Login	25-Apr-14 10:59	DRC	BTEX A1
HS14041068-29	MW-106-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-30	MW-106-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-31	MW-98-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-31	MW-98-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-31	MW-98-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-31	MW-98-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-31	MW-98-0414	Login	25-Apr-14 10:59	DRC	BTEX A1
HS14041068-31	MW-98-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-32	MW-98-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-33	Dup-11-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-33	Dup-11-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-33	Dup-11-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-33	Dup-11-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-33	Dup-11-0414	Login	25-Apr-14 10:59	DRC	BTEX A1
HS14041068-33	Dup-11-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-34	Dup-11-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-35	MW-59-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-35	MW-59-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-35	MW-59-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-35	MW-59-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-35	MW-59-0414	Login	25-Apr-14 10:59	DRC	BTEX A1

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Work Order: HS14041068

SAMPLE TRACKING

HS14041068-35	MW-59-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-36	MW-59-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-37	MW-60-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-37	MW-60-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-37	MW-60-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-37	MW-60-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-37	MW-60-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-37	MW-60-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-37	MW-60-0414	Login	25-Apr-14 10:59	DRC	BTEX A1
HS14041068-37	MW-60-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-38	MW-60-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-39	RW-10-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-39	RW-10-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-39	RW-10-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-39	RW-10-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-39	RW-10-0414	Login	25-Apr-14 10:59	DRC	BTEX A1
HS14041068-39	RW-10-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-40	RW-10-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-41	MW-40-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-41	MW-40-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-41	MW-40-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-41	MW-40-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-41	MW-40-0414	Login	25-Apr-14 10:59	DRC	BTEX A1
HS14041068-41	MW-40-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-42	MW-40-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-42	MW-40-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-42	MW-40-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-42	MW-40-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-42	MW-40-0414-D	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-42	MW-40-0414-D	Login	25-Apr-14 10:59	DRC	BTEX A1
HS14041068-42	MW-40-0414-D	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-43	MW-41-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-43	MW-41-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-43	MW-41-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-43	MW-41-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-43	MW-41-0414	Login	25-Apr-14 10:59	DRC	BTEX A1
HS14041068-43	MW-41-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-44	MW-41-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-45	RW-9-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-45	RW-9-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-45	RW-9-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-45	RW-9-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-45	RW-9-0414	Login	25-Apr-14 10:59	DRC	BTEX A1

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Work Order: HS14041068

SAMPLE TRACKING

HS14041068-45	RW-9-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-46	RW-9-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-47	MW-42-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-47	MW-42-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-47	MW-42-0414	Login	25-Apr-14 10:59	DRC	19E
HS14041068-47	MW-42-0414	Login	25-Apr-14 10:59	DRC	VW-3
HS14041068-47	MW-42-0414	Login	25-Apr-14 10:59	DRC	BTEX A1
HS14041068-47	MW-42-0414	Login	25-Apr-14 10:59	DRC	TPH C2
HS14041068-48	MW-42-0414-D	Login	25-Apr-14 10:59	DRC	19E
HS14041068-49	TB-032714-32	Login	25-Apr-14 11:14	DRC	VW-3

Sample Receipt Checklist

Client Name: Navajo Refining
Work Order: HS14041068

Date/Time Received: **24-Apr-2014 09:15**
Received by: **ECD**

Checklist completed by: Dana.Capps 25-Apr-2014
eSignature Date

Reviewed by: _____
eSignature Date

Matrices: **Water**Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	

Temperature(s)/Thermometer(s): 2.3/2.3 0.6/0.6 3.1/3.1 0.1/0.1 2.4/2.4 0.6/0.6 0.3/0.3 R3
C/U

Cooler(s)/Kit(s): 5895 6032 5527 3018 5760 5615 3987

Date/Time sample(s) sent to storage: 04/25/2014

Water - VOA vials have zero headspace? Yes ☒ No ☐ No VOA vials submitted ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ N/A ☐

pH adjusted? Yes ☐ No ☒ N/A ☐

pH adjusted by: _____

Login Notes:

Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: 0 Regarding: _____

Comments: _____

Corrective Action: _____



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COC ID: 93395

HS14041068

Navajo Refining Company
Artesia Refinery Semi-Annual



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ALS Project Manager:

Customer Information				Project Information				ALS Project Manager:											
Purchase Order	173653	138604	Project Name	SA- Artesia Refinery-TMD SA-GW	A	VOC (8260) Select													
Work Order			Project Number	50160	B	GRO (8015M)													
Company Name	Navajo Refining Company		Bill To Company	Navajo Refining Company	C	DRO (8015M)													
Send Report To	Aaron Strange		Invoice Attn	Carrie Hernandez	D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se													
Address	PO Box 159		Address	PO Box 159	E	Total Metals (6020/7470) Hg, Ni, V													
City/State/Zip	Artesia, NM 88211		City/State/Zip	Artesia, NM 88211	F	Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS													
Phone	(575) 748-6733		Phone	(575) 748-6733	G	Cyanide (9014)													
Fax	(575) 746-5421		Fax	(575) 746-5421	H	Nitrate/Nitrite as N (preserved)													
e-Mail Address	robert.combs@navajo-refining.com		e-Mail Address	robert.combs@navajo-refining.com	I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se													
					J	Dis. Metals (6020/7470) Hg, Ni, V													
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	mw-50-0414	04/21/14	1100	HW	2,3,8	6			X	X		X		X					
2	mw-50-0414-D	04/21/14	1100	HW	2,8	1									X				
3	mw-91-0414	04/21/14	1200	HW	2,3,8	6			X	X		X		X					
4	mw-91-0414-D	04/21/14	1200	HW	2,8	1									X				
5	mw-90-0414	04/21/14	1230	HW	2,3,8	6			X	X		X		X					
6	mw-90-0414-D	04/21/14	1230	HW	2,8	1									X				
7	mw-96-0414	04/21/14	1305	HW	2,3,8	6			X	X		X		X					
8	mw-96-0414-D	04/21/14	1305	HW	2,8	1									X				
9																			
10																			

Sampler(s) Please Print & Sign Sara Jerry				Shipment Method Fed X		Required Turnaround Time: (Check Box) ☒ Std 10 Wk Days ☐ 5 Wk Days ☐ Other ☐ 2 Wk Days ☐ 24 Hour				Results Due Date:					
Relinquished by: Sara Jerry		Date: 04/23/14		Time: 1500		Received by: E. Davis		Date: 04-24-14		Time: 9:15		Notes: 10 Work Days TAT. CC Pam Krueger/Arcadis			
Relinquished by:		Date:		Time:		Received by (Laboratory):		Date:		Time:		QC Package: (Check One Box Below)			
Logged by (Laboratory):		Date:		Time:		Checked by (Laboratory):		Date:		Time:		☒ Level II Std QC ☐ TRRP CheckList ☐ Level III Std QC/Raw Data ☐ TRRP Level IV ☐ Level IV SWB43/CLP ☐ Other / EDD			
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035															

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York, PA
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Customer Information		Project Information		ALS Project Manager: ALS Work Order #:																
Parameter/Method Request for Analysis																				
Purchase Order	175555 138604	Project Name	SA- Artesia Refinery-TMD SA-GW	A	VOC (8260) Select															
Work Order		Project Number	305750	B	GRO (8015M)															
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	DRO (8015M)															
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se															
Address	PO Box 159	Address	PO Box 159	E	Total Metals (6020/7470) Hg, Ni, V															
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	F	Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS															
Phone	(575) 748-6733	Phone	(575) 748-6733	G	Cyanide (9014)															
Fax	(575) 746-5421	Fax	(575) 746-5421	H	Nitrate/Nitrite as N (preserved)															
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se															
				J	Dis. Metals (6020/7470) Hg, Ni, V															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold			
1	mw-95-0414	04/21/14	1340	ltw	2,3,8	6			X	X		X		X						
2	mw-95-0414-D	04/21/14	1340	ltw	2,8	1									X					
3	RW-17-0414	04/21/14	1410	ltw	2,3,8	6			X	X		X		X						
4	RW-17-0414-D	04/21/14	1410	ltw	2,8	1									X					
5	RW-16-0414	04/21/14	1440	ltw	2,3,8	6			X	X		X		X						
6	RW-16-0414-D	04/21/14	1440	ltw	2,8	1									X					
7	Dup-10-0414	04/21/14		ltw	2,3,8	6			X	X		X		X						
8	Dup-10-0414-D	04/21/14		ltw	2,8	1									X					
9	EB-14-0414	04/21/14	1510	ltw	2,3,4,8	7			X	X	X	X	X	X						
10	EB-14-0414-D	04/21/14	1510	ltw	2,8	1									X	X				
Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:												
Sgt. Jerry San Juan		Fed X		☒ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour																
Relinquished by:		Date:	Time:	Received by:		Notes:														
Sgt. Jerry San Juan		04/23/14	1500	E. Davis 424-14-9:15		10 Work Days TAT. CC Pam Krueger/Arcadis														
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)												
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):				☒ Level II Std QC ☐ TRRP CheckList ☐ Level III Std QC/Raw Data ☐ TRRP Level IV ☐ Level IV SW846/CLP ☐ Other / EDD												
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035																				

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Customer Information		Project Information		ALS Project Manager:		ALS Work Order #:	
Purchase Order	173652 138604	Project Name	SA- Artesia Refinery- ~~Test~~ SW	A	VOC (8260) Select		
Work Order		Project Number	50760	B	GRO (8015M)		
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	DRO (8015M)		
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se		
Address	PO Box 159	Address	PO Box 159	E	Total Metals (6020/7470) Hg, Ni, V		
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	F	Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS		
Phone	(575) 748-6733	Phone	(575) 748-6733	G	Cyanide (9014)		
Fax	(575) 746-5421	Fax	(575) 746-5421	H	Nitrate/Nitrite as N (preserved)		
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se		
				J	Dis. Metals (6020/7470) Hg, Ni, V		

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	mw-93-0414	04/22/14	0810	(H2O)	2.3.8	6			X	X		X		X			
2	mw-93-0414-D	04/22/14	0810	(H2O)	2.8	1									X		
3	mw-43-0414	04/22/14	0855	(H2O)	2.3.4.8	7			X	X	X	X	X	X			
4	mw-43-0414-D	04/22/14	0855	(H2O)	2.8	1									X	X	
5	EB-15-0414	04/22/14	0910	(H2O)	2.3.4.8	7			X	X	X	X	X	X			
6	EB-15-0414-D	04/22/14	0910	(H2O)	2.8	1									X	X	
7	mw-23-0414	04/22/14	0935	(H2O)	2.3.8	6			X	X		X		X			
8	mw-23-0414-D	04/22/14	0935	(H2O)	2.8	1									X		
9																	
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Sosa Samy Son Juan		Fed X		☒ Std 10 WK Days ☐ 5 WK Days ☐ Other			
Relinquished by:		Date:	Time:	Received by:		Notes:	
Sosa Samy		04/23/14	1500	E. H. 424-14 - 9:15		10 Work Days TAT. CC Pam Krueger/Arcadis	
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID	
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		Cooler Temp.	
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035							
QC Package: (Check One Box Below) ☒ Level II Std QC ☐ TRRP CheckList ☐ Level III Std QC/Raw Data ☐ TRRP Level IV ☐ Level IV SW846/CLP ☐ Other / EDD							

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South Charleston, WV
+1 304 356 3168
York, PA
+1 717 505 5280

Customer Information		Project Information		Parameter/Method Request for Analysis													
Purchase Order	173663 138604	Project Name	SA- Artesia Refinery- ~~Top Soil~~ SW	A	VOC (8260) Select												
Work Order		Project Number		B	GRO (8015M)												
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	DRO (8015M)												
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	D	Total Metals (8020) As, Ba, Cr, Fe, Pb, Mn, Se												
Address	PO Box 159	Address	PO Box 159	E	Total Metals (6020/7470) Hg, Ni, V												
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	F	Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS												
Phone	(575) 748-6733	Phone	(575) 748-6733	G	Cyanide (9014)												
Fax	(575) 746-5421	Fax	(575) 746-5421	H	Nitrate/Nitrite as N (preserved)												
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se												
				J	Dis. Metals (6020/7470) Hg, Ni, V												
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	mw-62-0414	04/22/14	1010	fw	2.38	6			X	X		X		X			
2	mw-62-0414-D	04/22/14	1010	fw	2.8	1									X		
3	mw-106-0414	04/22/14	1045	fw	2.38	6			X	X		X		X			
4	mw-106-0414-D	04/22/14	1045	fw	2.8	1									X		
5	mw-98-0414	04/22/14	1120	fw	2.38	6			X	X		X		X			
6	mw-98-0414-D	04/22/14	1120	fw	2.8	1									X		
7	Dup-11-0414	04/22/14		fw	2.38	6			X	X		X		X			
8	Dup-11-0414-D	04/22/14		fw	2.8	1									X		
9																	
10																	
Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:									
Sara J. Jarmy		Fed X		☒ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24-Hour													
Relinquished by:		Date:	Time:	Received by:		Notes:											
Sara J. Jarmy		04/23/14	1500	E. Davis		10 Work Days TAT. CC Pam Krueger/Arcadis											
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)									
								☒ Level II Std QC ☐ TRRP CheckList ☐ Level III Std QC/Raw Data ☐ TRRP Level IV ☐ Level IV SW845/CLP ☐ Other / EDD									
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):													
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035																	

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COC ID: 93400

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+1 610 948 4903
Salt Lake City, UT
+1 801 266 7700

South Charleston, WV
+1 304 356 3168
York, PA
+1 717 505 5280

Customer Information		Project Information		Parameter/Method Request for Analysis													
Purchase Order	17359 138604	Project Name	SA- Artesia Refinery-TEL-SAH	A	VOC (8260) Select												
Work Order		Project Number	5W/GW	B	GRO (8015M)												
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	DRO (8015M)												
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se												
Address	PO Box 159	Address	PO Box 159	E	Total Metals (6020/7470) Hg, Ni, V												
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	F	Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS												
Phone	(575) 748-6733	Phone	(575) 748-6733	G	Cyanide (9014)												
Fax	(575) 746-5421	Fax	(575) 746-5421	H	Nitrate/Nitrite as N (preserved)												
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se												
				J	Dis. Metals (6020/7470) Hg, Ni, V												
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	mw-59-0414	04/22/14	1200	ltw	2.8	6			X	X		X		X			
2	mw-59-0414-D	04/22/14	1200	ltw	2.8	1									X		
3	mw-60-0414	04/22/14	1235	ltw	2.8	7			X	X	X	X	X	X			
4	mw-60-0414	04/22/14	1235	ltw	2.8	1									X	X	
5	RW-10-0414	04/22/14	1315	ltw	2.8	6			X	X		X		X			
6	RW-10-0414-D	04/22/14	1315	ltw	2.8	1									X		
7	mw-40-0414	04/22/14	1345	ltw	2.8	6			X	X		X		X			
8	mw-40-0414-D	04/22/14	1345		2.8	1									X		
9																	
10																	
Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:									
Sara Jerry Son Jerry		Fax X		☒ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour													
Relinquished by: Sara Jerry		Date: 04/23/14	Time: 1500	Received by: ELA/104-24-14-9:15		Notes: 10 Work Days TAT. CC Pam Krueger/Arcadis											
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)									
								☒ Level II Std QC ☐ TRRP CheckList ☐ Level III Std QC/Raw Data ☐ TRRP Level IV ☐ Level IV SW/842/CLP ☐ Other / EDD									
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035																	

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COC ID: 93401

Houston, TX
+1 281 530 5656
Middletown, PA
+1 717 944 5541

Spring City, PA
+1 610 948 4903
Salt Lake City, UT
+1 801 266 7700

South Charleston, WV
+1 304 356 3168
York, PA
+1 717 505 5280

Customer Information		Project Information		Parameter/Method Request for Analysis															
Purchase Order	138604	Project Name	SA- Artesia Refinery-TEL SA GW	A	VOC (8260) Select														
Work Order		Project Number		B	GRO (8015M)														
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	DRO (8015M)														
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se														
Address	PO Box 159	Address	PO Box 159	E	Total Metals (6020/7470) Hg, Ni, V														
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	F	Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS														
Phone	(575) 748-8733	Phone	(575) 748-8733	G	Cyanide (9014)														
Fax	(575) 746-5421	Fax	(575) 746-5421	H	Nitrate/Nitrite as N (preserved)														
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se														
				J	Dis. Metals (6020/7470) Hg, Ni, V														
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	mw-41-0414	04/22/14	1415	ltw	23.8	6			X	X		X		X					
2	mw-41-0414-D	04/22/14	1415	ltw	2.8	1									X				
3	Rw-9-0414	04/22/14	1440	ltw	23.8	6			X	X		X		X					
4	Rw-9-0414-D	04/22/14	1440	ltw	2.8	1									X				
5	mw-42-0414	04/22/14	1570	ltw	23.8	6			X	X		X		X					
6	mw-42-0414-D	04/22/14	1570	ltw	2.8	1									X				
7																			
8																			
9																			
10																			
Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:											
Jose Jerry Sonfery		Fed X		☒ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour															
Relinquished by:		Date:	Time:	Received by:		Notes:													
Jose Jerry		04/23/14	1500	E. Davis 4-24-14- 9:15		10 Work Days TAT. CC Pam Krueger/Arcadis													
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)											
								☒ Level II Std QC ☐ TRRP CheckList ☐ Level III Std QC/Raw Data ☐ TRRP Level IV ☐ Level IV SW846/CLP ☐ Other / EDD											
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):															
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035																			

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COC ID: 93397

Houston, TX
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Spring City, PA
+1 610 948 4903
Salt Lake City, UT
+1 801 266 7700

South Charleston, WV
+1 304 356 3168
York, PA
+1 717 505 5280

Customer Information			Project Information			Parameter/Method Request for Analysis													
Purchase Order	473053- 138604		Project Name	SA- Artesia Refinery-TMD SA-GW		A	VOC (8260) Select												
Work Order			Project Number	5076W		B	GRO (8015M)												
Company Name	Navajo Refining Company		Bill To Company	Navajo Refining Company		C	DRO (8015M)												
Send Report To	Aaron Strange		Invoice Attn	Carrie Hernandez		D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se												
Address	PO Box 159		Address	PO Box 159		E	Total Metals (6020/7470) Hg, Ni, V												
City/State/Zip	Artesia, NM 88211		City/State/Zip	Artesia, NM 88211		F	Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS												
Phone	(575) 748-6733		Phone	(575) 748-6733		G	Cyanide (9014)												
Fax	(575) 746-5421		Fax	(575) 746-5421		H	Nitrate/Nitrite as N (preserved)												
e-Mail Address	robert.combs@navajo-refining.com		e-Mail Address	robert.combs@navajo-refining.com		I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se												
						J	Dis. Metals (6020/7470) Hg, Ni, V												
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	mw-50-0414	04/21/14	1100	ltw	1,8	3	X												
2	mw-91-0414	04/21/14	1200	ltw	1,8	6	X	X											
3	mw-90-0414	04/21/14	1230	ltw	1,8	6	X	X											
4	mw-96-0414	04/21/14	1305	ltw	1,8	6	X	X											
5	mw-95-0414	04/21/14	1340	ltw	1,8	6	X	X											
6	rw-17-0414	04/21/14	1410	ltw	1,8	6	X	X											
7	rw-16-0414	04/21/14	1440	ltw	1,8	3	X												
8	sup-10-0414	04/21/14		ltw	1,8	3	X												
9	CB-14-0414	04/21/14	1510	ltw	1,8	6	X	X											
10	mw-93-0414	04/22/14	0810	ltw	1,8	6	X	X											
Sampler(s) Please Print & Sign			Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:										
Sosa Jerry Sosa Jerry			Fed X		☒ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour														
Relinquished by:		Date:	Time:	Received by:		Notes:													
Sosa Jerry		04/23/14	1500	E Davis 42414 - 9:45		10 Work Days TAT. CC Pam Krueger/Arcadis													
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)											
								☒ Level II Std QC ☐ TRRP CheckList ☐ Level III Std QC/Raw Data ☐ TRRP Level IV ☐ Level IV SW846/CLP ☐ Other / EDD											
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):															
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035																			

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York, PA
+1 717 505 5280

Customer Information			Project Information			ALS Project Manager: ALS Work Order #:																		
Purchase Order			Project Name			Parameter/Method Request for Analysis																		
138604			SA- Artesia Refinery TEL: SA SW			A VOC (8260) Select																		
Work Order			Project Number			B GRO (8015M)																		
Company Name			Bill To Company			C DRO (8015M)																		
Send Report To			Invoice Attn			D Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se																		
Address			Address			E Total Metals (6020/7470) Hg, Ni, V																		
City/State/Zip			City/State/Zip			F Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS																		
Phone			Phone			G Cyanide (9014)																		
Fax			Fax			H Nitrate/Nitrite as N (preserved)																		
e-Mail Address			e-Mail Address			I Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se																		
robert.combs@navajo-refining.com			robert.combs@navajo-refining.com			J Dis. Metals (6020/7470) Hg, Ni, V																		
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold							
1	mw-43-0414	04/22/14	0855	AW	1.8	6	X	X																
2	EB-15-0414	04/22/14	0910	AW	1.8	6	X	X																
3	mw-23-0414	04/24/14	0935	AW	1.8	6	X	X																
4	mw-62-0414	04/22/14	1010	AW	1.8	6	X	X																
5	mw-106-0414	04/22/14	1045	AW	1.8	6	X	X																
6	mw-98-0414	04/22/14	1120	AW	1.8	6	X	X																
7	Dup-11-0414	04/22/14		AW	1.8	6	X	X																
8	mw-59-0414	04/22/14	1200	AW	1.8	6	X	X																
9	mw-60-0414	04/22/14	1235	AW	1.8	6	X	X																
10	RW-10-0414	04/22/14	1315	AW	1.8	6	X	X																
Sampler(s) Please Print & Sign			Shipment Method			Required Turnaround Time: (Check Box)			Results Due Date:															
Sosa Jerry Sosa Jerry			AWX			☒ Std 10 WK Days ☐ 5 WK Days ☐ Other																		
Relinquished by:			Date:			Time:			Received by:			Notes:												
Sosa Jerry			04/23/14			1500			E. Sosa 4-24-14- 9:15			10 Work Days TAT. CC Pam Krueger/Arcadis												
Relinquished by:			Date:			Time:			Received by (Laboratory):			Cooler ID			Cooler Temp.			QC Package: (Check One Box Below)						
Logged by (Laboratory):			Date:			Time:			Checked by (Laboratory):									☒ Level II Std QC ☐ TRRP CheckList ☐ Level III Std QC/Raw Data ☐ TRRP Level IV ☐ Level IV SW846/CLP ☐ Other / EDD						
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035																								

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South Charleston, WV
+1 304 356 3168
York, PA
+1 717 505 5280

Customer Information		Project Information		ALS Project Manager:		ALS Work Order #:	
Purchase Order	138604	Project Name	SA- Artesia Refinery-TEL-SP-04	A	VOC (8260) Select		
Work Order		Project Number	50760	B	GRO (8015M)		
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	DRO (9015M)		
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se		
Address	PO Box 159	Address	PO Box 159	E	Total Metals (6020/7470) Hg, Ni, V		
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	F	Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS		
Phone	(575) 748-6733	Phone	(575) 748-6733	G	Cyanide (9014)		
Fax	(575) 746-5421	Fax	(575) 746-5421	H	Nitrate/Nitrite as N (preserved)		
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se		
				J	Dis. Metals (6020/7470) Hg, Ni, V		

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	mw-40-0414	04/22/14	1345	fw	1.8	6	X	X									
2	mw-41-0414	04/22/14	1415	fw	1.8	6	X	X									
3	RW-9-0414	04/22/14	1440	fw	1.8	6	X	X									
4	mw-42-0414	04/22/14	1510	fw	1.8	6	X	X									
5	~~mw-29-0414~~	~~04/22/14~~	~~1510~~	~~fw~~	~~1.8~~	~~6~~	~~X~~	~~X~~									
6	TB-032714-32	04/23/14	1900	fw	1.8	2	X										
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
SOS, Jerry Son Jern		Fed X		☒ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour			
Relinquished by:	Date:	Time:	Received by:	Notes:			
Son Jern	04/23/14	1500	E. Davis	10 Work Days TAT. CC Pam Krueger/Arcadis			
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)	
						☒ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SW846/CLP ☐ Other / EDD	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	☐ TRRP CheckList ☐ TRRP Level IV			
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035							

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TRK# 5797 1186 9877

THU - 24 APR 10:30A
PRIORITY OVERNIGHT

AB SGRA

77099
TX-US IAH



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Houston, Texas 77099
Tel. +1 281 530 5656
Fax +1 281 530 5887

CUSTODY SEAL

Date: 04/23/14 Time: 1500
Name: SGRA
Company: SGRA

Seal Broken By:

Date:

TRK# 5797 1186 9888

THU - 24 APR 10:30A
PRIORITY OVERNIGHT

AB SGRA

77099
TX-US IAH



ALS Environmental
10450 Stancil Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax +1 281 530 5887

CUSTODY SEAL

Date: 04/23/14 Time: 1500
Name: SGRA
Company: SGRA

Seal Broken By:

Date:

TRK# 5797 1186 9914

THU - 24 APR 10:30A
PRIORITY OVERNIGHT

AB SGRA

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TX-US IAH



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Houston, Texas 77099
Tel. +1 281 530 5656
Fax +1 281 530 5887

CUSTODY SEAL

Date: 04/23/14 Time: 1500
Name: SGRA
Company: SGRA

Seal Broken By:

Date:

TRK# 5797 1186 9903

THU - 24 APR 10:30A
PRIORITY OVERNIGHT

AB SGRA

77099
TX-US IAH



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Houston, Texas 77099
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Fax +1 281 530 5887

CUSTODY SEAL

Date: 04/23/14 Time: 1500
Name: SGRA
Company: SGRA

Seal Broken By:

Date:

TRK# 5797 1186 9899 THU - 24 APR 10:30A
 0201
AB SGRA 77099
 TX-US IAH

ALS Environmental
 10450 Standcliff Rd., Suite 210
 Houston, Texas 77099
 Tel. +1 281 530 5656
 Fax. +1 281 530 5687

CUSTODY SEAL
 Date: 04/23/14 Time: 11:00
 Name: SGRA
 Company: SGRA

9899
 04/24
 an By: [Signature]
 02-16

TRK# 5797 1186 9936 THU - 24 APR 10:30A
 0201
AB SGRA 77099
 TX-US IAH

ALS Environmental
 10450 Standcliff Rd., Suite 210
 Houston, Texas 77099
 Tel. +1 281 530 5656
 Fax. +1 281 530 5687

CUSTODY SEAL
 Date: 04/23/14 Time: 5:27
 Name: SGRA
 Company: SGRA

Seal Broken By: [Signature]
 Date: 04/24/14

 ALS Environmental 10450 Stancil Rd., Suite 210 Houston, Texas 77039 Tel. +1 281 530 5666 Fax. +1 281 530 5667	CUSTODY SEAL		Seal Broken By:
	Date: 4/28/14	Time: 1500	Signature: [Signature]
	Name: [Signature]	Company: [Signature]	Date: 4/28/14



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

September 04, 2014

Aaron Strange
Navajo Refining Company
PO Box 1490
Artesia, NM 88211-1490

Work Order: **HS14050073**

Revision: **3**

Laboratory Results for: **Artesia Refinery Semi-Annual**

Dear Aaron,

ALS Environmental received 57 sample(s) on May 01, 2014 for the analysis presented in the following report.

This is a REVISED REPORT. Please see the Case Narrative for discussion concerning this revision.

Regards,

A handwritten signature in cursive script that reads 'Bethany McDaniel'.

Generated By: Bethany.McDaniel
Bethany McDaniel
Project Manager

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Work Order: HS14050073

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS14050073-01	MW-104-0414	Water		28-Apr-2014 11:00	01-May-2014 09:30	☐
HS14050073-02	MW-104-0414-D	Water		28-Apr-2014 11:00	01-May-2014 09:30	☐
HS14050073-03	Dup-13-0414	Water		28-Apr-2014 00:00	01-May-2014 09:30	☐
HS14050073-04	Dup-13-0414-D	Water		28-Apr-2014 00:00	01-May-2014 09:30	☐
HS14050073-05	MW-103-0414	Water		28-Apr-2014 12:10	01-May-2014 09:30	☐
HS14050073-06	MW-103-0414-D	Water		28-Apr-2014 12:10	01-May-2014 09:30	☐
HS14050073-07	MW-101-0414	Water		28-Apr-2014 12:35	01-May-2014 09:30	☐
HS14050073-08	MW-101-0414-D	Water		28-Apr-2014 12:35	01-May-2014 09:30	☐
HS14050073-09	MW-29-0414	Water		28-Apr-2014 13:10	01-May-2014 09:30	☐
HS14050073-10	MW-29-0414-D	Water		28-Apr-2014 13:10	01-May-2014 09:30	☐
HS14050073-11	MW-66-0414	Water		28-Apr-2014 13:45	01-May-2014 09:30	☐
HS14050073-12	MW-66-0414-D	Water		28-Apr-2014 13:45	01-May-2014 09:30	☐
HS14050073-13	MW-28-0414	Water		28-Apr-2014 14:20	01-May-2014 09:30	☐
HS14050073-14	MW-28-0414-D	Water		28-Apr-2014 14:20	01-May-2014 09:30	☐
HS14050073-15	MW-107-0414	Water		28-Apr-2014 15:00	01-May-2014 09:30	☐
HS14050073-16	MW-107-0414-D	Water		28-Apr-2014 15:00	01-May-2014 09:30	☐
HS14050073-17	EB-17-0414	Water		28-Apr-2014 16:00	01-May-2014 09:30	☐
HS14050073-18	EB-17-0414-D	Water		28-Apr-2014 16:00	01-May-2014 09:30	☐
HS14050073-19	MW-61-0414	Water		29-Apr-2014 08:15	01-May-2014 09:30	☐
HS14050073-20	MW-61-0414-D	Water		29-Apr-2014 08:15	01-May-2014 09:30	☐
HS14050073-21	MW-128-0414	Water		29-Apr-2014 11:40	01-May-2014 09:30	☐
HS14050073-22	MW-128-0414-D	Water		29-Apr-2014 11:40	01-May-2014 09:30	☐
HS14050073-23	TEL-4-0414	Water		29-Apr-2014 10:30	01-May-2014 09:30	☐
HS14050073-24	TEL-4-0414-D	Water		29-Apr-2014 10:30	01-May-2014 09:30	☐
HS14050073-25	MW-49-0414	Water		29-Apr-2014 11:05	01-May-2014 09:30	☐
HS14050073-26	MW-49-0414-D	Water		29-Apr-2014 11:05	01-May-2014 09:30	☐
HS14050073-27	TEL-1-0414	Water		29-Apr-2014 09:00	01-May-2014 09:30	☐

Revision:3

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Work Order: HS14050073

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS14050073-28	TEL-1-0414-D	Water		29-Apr-2014 09:00	01-May-2014 09:30	☐
HS14050073-29	Dup-14-0414	Water		29-Apr-2014 00:00	01-May-2014 09:30	☐
HS14050073-30	Dup-14-0414-D	Water		29-Apr-2014 00:00	01-May-2014 09:30	☐
HS14050073-31	TEL-2-0414	Water		29-Apr-2014 09:30	01-May-2014 09:30	☐
HS14050073-32	TEL-2-0414-D	Water		29-Apr-2014 09:30	01-May-2014 09:30	☐
HS14050073-33	TEL-3-0414	Water		29-Apr-2014 10:05	01-May-2014 09:30	☐
HS14050073-34	TEL-3-0414-D	Water		29-Apr-2014 10:05	01-May-2014 09:30	☐
HS14050073-35	MW-114-0414	Water		29-Apr-2014 12:35	01-May-2014 09:30	☐
HS14050073-36	MW-114-0414-D	Water		29-Apr-2014 12:35	01-May-2014 09:30	☐
HS14050073-37	MW-115-0414	Water		29-Apr-2014 13:20	01-May-2014 09:30	☐
HS14050073-38	MW-115-0414-D	Water		29-Apr-2014 13:20	01-May-2014 09:30	☐
HS14050073-39	MW-116-0414	Water		29-Apr-2014 14:00	01-May-2014 09:30	☐
HS14050073-40	MW-116-0414-D	Water		29-Apr-2014 14:00	01-May-2014 09:30	☐
HS14050073-41	MW-125-0414	Water		29-Apr-2014 14:35	01-May-2014 09:30	☐
HS14050073-42	MW-125-0414-D	Water		29-Apr-2014 14:35	01-May-2014 09:30	☐
HS14050073-43	EB-18-0414	Water		29-Apr-2014 15:20	01-May-2014 09:30	☐
HS14050073-44	EB-18-0414-D	Water		29-Apr-2014 15:20	01-May-2014 09:30	☐
HS14050073-45	MW-117-0414	Water		30-Apr-2014 09:20	01-May-2014 09:30	☐
HS14050073-46	MW-117-0414-D	Water		30-Apr-2014 09:20	01-May-2014 09:30	☐
HS14050073-47	MW-118-0414	Water		30-Apr-2014 10:00	01-May-2014 09:30	☐
HS14050073-48	MW-118-0414-D	Water		30-Apr-2014 10:00	01-May-2014 09:30	☐
HS14050073-49	MW-119-0414	Water		30-Apr-2014 10:40	01-May-2014 09:30	☐
HS14050073-50	MW-119-0414-D	Water		30-Apr-2014 10:40	01-May-2014 09:30	☐
HS14050073-51	DUP-15-0414	Water		30-Apr-2014 00:00	01-May-2014 09:30	☐
HS14050073-52	DUP-15-0414-D	Water		30-Apr-2014 00:00	01-May-2014 09:30	☐
HS14050073-53	MW-46R-0414	Water		30-Apr-2014 08:45	01-May-2014 09:30	☐
HS14050073-54	MW-46R-0414-D	Water		30-Apr-2014 08:45	01-May-2014 09:30	☐

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Work Order: HS14050073

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS14050073-55	EB-19-0414	Water		30-Apr-2014 12:00	01-May-2014 09:30	☐
HS14050073-56	EB-19-0414-D	Water		30-Apr-2014 12:00	01-May-2014 09:30	☐
HS14050073-57	TB-032514-92	Water		30-Apr-2014 15:00	01-May-2014 09:30	☐

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Work Order: HS14050073

CASE NARRATIVE

This report was revised on September 3, 2014 to report to the MDL per client request

This report has been revised to change sample ID MW-144-0414-D to MW-114-0414-D (HS14050073-36).

Report was revised July 22, 2014 per client request to remove Magnesium not requested.

Batch R233224, Volatile Organics Method SW8260: MS/MSD recoveries were outside the control limits for cis-1,2-Dichloroethene, due to possible matrix interference. cis-1,2-Dichloroethene exceeded %D limits for CCV. LCS is outside quality control limits. Samples are non-detected "ND" for this constituent.

Gasoline Range Organics by Method SW8015, Samples MW-103-0414, MW-61-0414: Surrogate recovery, 4-Bromofluorobenzene, was outside the control limits.

Batch 82340 and 82369, Dissolved Mercury by Method SW7470, Samples MW-66-0414-D, MW-28-0414-D, EB-17-0414: Analytical results are flagged with an H qualifier.

Batch 81601 and 81677, TPH (Diesel Range) by Method SW8015, Samples TEL-4-0414, TEL-1-0414, Dup-14-0414, TEL-2-0414, TEL-3-0414: Surrogate recovery, 2-Fluorobiphenyl, was outside the control limits due to matrix interference and was confirmed by original run.

Batch 81677, TPH (Diesel Range) by Method SW8015: Surrogate, 2-Fluorobiphenyl, recovery for LCSD was above control limits.

Batch R233326, Gasoline Range Organics by Method SW8015, Sample HS14050151-06 MS and MSD were performed on an unrelated sample.

Batch 82074, Metals by Method SW6020, Sample HS14050331-03 DUP RPD was performed on an unrelated sample.

Batch 82140, Metals by Method SW6020, Sample HS14050666-04 MS/MSD/DUP/PDS/SD were performed on an unrelated sample.

Batch 82186, Metals by Method SW6020, Sample HS14050689-02 MS and MSD were performed on an unrelated sample.

Batch 82188, Metals by Method SW6020, Sample HS14050767-01 MS and MSD were performed on an unrelated sample.

Batch R233275, Volatile Organics by Method SW8260, Sample "TEL-2-0414": MS/MSD recoveries were above the control limits for Chloroethane, due to possible matrix interference. The associated LCS recoveries and MS/MSD RPD were within the control limits.

Batch R233364, Volatile Organics by Method SW8260, Sample HS14050052-01 MS and MSD were performed on an unrelated sample.

Batch R233368, Volatile Organics by Method SW8260, Sample "MW-107-0414": MS and/or MSD recoveries were outside the control limits for Chloroethane, due to possible matrix interference. The associated LCS recoveries and MS/MSD RPD were within the control limits.

Batch R233298, Cyanide by Method SW9012, Sample HS14041068-37 MS and MSD were performed on an unrelated sample.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Work Order: HS14050073

CASE NARRATIVE

Batch R233976, Anions by E300.0, Sample "EB-19-0414": MS recoveries were outside the control limits for Chloride, Fluoride Sulfate, due to possible matrix interference. MSD RPD is outside control limits for Sulfate. The associated LCS recoveries were within the control limits.

Batch R234131, Anions by E300.0, Sample "Dup-14-0414": MS and MSD recoveries were outside the control limits for Chloride, due to possible matrix interference. The associated LCS recoveries and MS/MSD RPD were within the control limits.

Batch R234293, Anions by E300.0, Sample "EB-19-0414": MS and MSD recoveries were below the control limits for Nitrate/Nitrite (as N), due to possible matrix interference. The associated LCS recoveries and MS/MSD RPD were within the control limits.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-104-0414
 Collection Date: 28-Apr-2014 11:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:31
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:31
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:31
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	06-May-2014 03:31
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:31
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:31
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	06-May-2014 03:31
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:31
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	06-May-2014 03:31
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 03:31
2-Butanone	U		0.0010	0.010	mg/L	1	06-May-2014 03:31
2-Hexanone	U		0.0010	0.010	mg/L	1	06-May-2014 03:31
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:31
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	06-May-2014 03:31
Acetone	U		0.0020	0.010	mg/L	1	06-May-2014 03:31
Benzene	0.056		0.00060	0.0050	mg/L	1	06-May-2014 03:31
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	06-May-2014 03:31
Bromoform	U		0.00050	0.0050	mg/L	1	06-May-2014 03:31
Bromomethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:31
Carbon disulfide	U		0.00090	0.010	mg/L	1	06-May-2014 03:31
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	06-May-2014 03:31
Chlorobenzene	U		0.00040	0.0050	mg/L	1	06-May-2014 03:31
Chloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:31
Chloroform	0.14		0.00060	0.0050	mg/L	1	06-May-2014 03:31
Chloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:31
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 03:31
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 03:31
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:31
Ethylbenzene	0.0012	J	0.00050	0.0050	mg/L	1	06-May-2014 03:31
Isopropylbenzene	0.052		0.00050	0.0050	mg/L	1	06-May-2014 03:31
m,p-Xylene	U		0.00060	0.010	mg/L	1	06-May-2014 03:31
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	06-May-2014 03:31
Methylene chloride	0.020		0.0010	0.010	mg/L	1	06-May-2014 03:31
Naphthalene	0.0030	J	0.00070	0.0050	mg/L	1	06-May-2014 03:31
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	06-May-2014 03:31
n-Propylbenzene	0.0046	J	0.00050	0.0050	mg/L	1	06-May-2014 03:31
o-Xylene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:31
sec-Butylbenzene	0.047		0.00060	0.0050	mg/L	1	06-May-2014 03:31
Styrene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:31
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 03:31
Toluene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:31
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	06-May-2014 03:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-104-0414
 Collection Date: 28-Apr-2014 11:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 03:31
Trichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:31
Vinyl chloride	U		0.00040	0.0020	mg/L	1	06-May-2014 03:31
Xylenes, Total	U		0.0015	0.015	mg/L	1	06-May-2014 03:31
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	1	06-May-2014 03:31
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	06-May-2014 03:31
Surr: Dibromofluoromethane	105			71-125	%REC	1	06-May-2014 03:31
Surr: Toluene-d8	102			75-125	%REC	1	06-May-2014 03:31
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 20-May-2014		Analyst: SKS	
Arsenic	U		0.00100	0.00500	mg/L	1	23-May-2014 20:42
Barium	0.0201		0.000900	0.00500	mg/L	1	23-May-2014 20:42
Calcium	232		0.670	5.00	mg/L	10	27-May-2014 19:08
Chromium	U		0.00100	0.00500	mg/L	1	23-May-2014 20:42
Iron	U		0.0500	0.200	mg/L	1	23-May-2014 20:42
Lead	U		0.000700	0.00500	mg/L	1	23-May-2014 20:42
Manganese	0.0380		0.00250	0.00500	mg/L	1	23-May-2014 20:42
Potassium	5.06		0.0500	0.200	mg/L	1	23-May-2014 20:42
Selenium	U		0.00100	0.00500	mg/L	1	23-May-2014 20:42
Sodium	95.7		0.500	2.00	mg/L	10	27-May-2014 19:08
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	1.42		0.0100	0.0500	mg/L	1	07-May-2014 21:24
Surr: 4-Bromofluorobenzene	111			70-130	%REC	1	07-May-2014 21:24
MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 20-May-2014		Analyst: JBA	
Mercury	U		0.0000400	0.000200	mg/L	1	20-May-2014 22:55
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	1,390		5.00	10.0	mg/L	1	05-May-2014 16:40
ANIONS BY E300.0		Method:E300		Analyst: KKB			
Chloride	86.0		10.0	25.0	mg/L	50	19-May-2014 23:06
Fluoride	2.26		0.0500	0.100	mg/L	1	21-May-2014 05:58
Sulfate	690		10.0	25.0	mg/L	50	19-May-2014 23:06
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 05-May-2014		Analyst: RPM	
TPH (Diesel Range)	0.72		0.021	0.052	mg/L	1	08-May-2014 00:44
Surr: 2-Fluorobiphenyl	79.3			60-135	%REC	1	08-May-2014 00:44
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: KKB			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	21-May-2014 18:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-104-0414-D
Collection Date: 28-Apr-2014 11:00

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-02
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 16-May-2014		Analyst: ALR	
Arsenic	U		0.00100	0.00500	mg/L	1	27-May-2014 23:13
Barium	0.0195		0.000900	0.00500	mg/L	1	28-May-2014 18:55
Chromium	U		0.00100	0.00500	mg/L	1	27-May-2014 23:13
Iron	U		0.0780	0.200	mg/L	1	27-May-2014 23:13
Lead	U		0.000700	0.00500	mg/L	1	27-May-2014 23:13
Manganese	0.0236		0.00250	0.00500	mg/L	1	27-May-2014 23:13
Selenium	U		0.00100	0.00500	mg/L	1	27-May-2014 23:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: Dup-13-0414
 Collection Date: 28-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-03
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:55
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:55
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:55
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	06-May-2014 03:55
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:55
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:55
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	06-May-2014 03:55
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:55
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	06-May-2014 03:55
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 03:55
2-Butanone	U		0.0010	0.010	mg/L	1	06-May-2014 03:55
2-Hexanone	U		0.0010	0.010	mg/L	1	06-May-2014 03:55
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:55
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	06-May-2014 03:55
Acetone	U		0.0020	0.010	mg/L	1	06-May-2014 03:55
Benzene	0.058		0.00060	0.0050	mg/L	1	06-May-2014 03:55
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	06-May-2014 03:55
Bromoform	U		0.00050	0.0050	mg/L	1	06-May-2014 03:55
Bromomethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:55
Carbon disulfide	U		0.00090	0.010	mg/L	1	06-May-2014 03:55
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	06-May-2014 03:55
Chlorobenzene	U		0.00040	0.0050	mg/L	1	06-May-2014 03:55
Chloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:55
Chloroform	0.14		0.00060	0.0050	mg/L	1	06-May-2014 03:55
Chloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:55
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 03:55
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 03:55
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:55
Ethylbenzene	0.0013	J	0.00050	0.0050	mg/L	1	06-May-2014 03:55
Isopropylbenzene	0.052		0.00050	0.0050	mg/L	1	06-May-2014 03:55
m,p-Xylene	U		0.00060	0.010	mg/L	1	06-May-2014 03:55
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	06-May-2014 03:55
Methylene chloride	0.021		0.0010	0.010	mg/L	1	06-May-2014 03:55
Naphthalene	0.0027	J	0.00070	0.0050	mg/L	1	06-May-2014 03:55
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	06-May-2014 03:55
n-Propylbenzene	0.0043	J	0.00050	0.0050	mg/L	1	06-May-2014 03:55
o-Xylene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:55
sec-Butylbenzene	0.047		0.00060	0.0050	mg/L	1	06-May-2014 03:55
Styrene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:55
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 03:55
Toluene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:55
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	06-May-2014 03:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: Dup-13-0414
 Collection Date: 28-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-03
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 03:55
Trichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:55
Vinyl chloride	U		0.00040	0.0020	mg/L	1	06-May-2014 03:55
Xylenes, Total	U		0.0015	0.015	mg/L	1	06-May-2014 03:55
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	1	06-May-2014 03:55
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	06-May-2014 03:55
Surr: Dibromofluoromethane	103			71-125	%REC	1	06-May-2014 03:55
Surr: Toluene-d8	100			75-125	%REC	1	06-May-2014 03:55
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 21-May-2014		Analyst: ALR	
Arsenic	U		0.00100	0.00500	mg/L	1	30-May-2014 01:40
Barium	0.0188		0.000900	0.00500	mg/L	1	30-May-2014 01:40
Calcium	235		0.670	5.00	mg/L	10	02-Jun-2014 22:55
Chromium	U		0.00100	0.00500	mg/L	1	30-May-2014 01:40
Iron	U		0.0500	0.200	mg/L	1	30-May-2014 01:40
Lead	U		0.000700	0.00500	mg/L	1	30-May-2014 01:40
Manganese	0.0216		0.00250	0.00500	mg/L	1	30-May-2014 01:40
Potassium	5.52		0.0500	0.200	mg/L	1	30-May-2014 01:40
Selenium	0.00155	J	0.00100	0.00500	mg/L	1	30-May-2014 01:40
Sodium	91.9		0.0500	0.200	mg/L	1	30-May-2014 01:40
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	1.42		0.0100	0.0500	mg/L	1	07-May-2014 21:40
Surr: 4-Bromofluorobenzene	112			70-130	%REC	1	07-May-2014 21:40
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	1,440		5.00	10.0	mg/L	1	05-May-2014 16:40
ANIONS BY E300.0		Method:E300		Analyst: KKB			
Chloride	82.4		10.0	25.0	mg/L	50	19-May-2014 23:32
Fluoride	2.24		0.0500	0.100	mg/L	1	21-May-2014 06:22
Sulfate	679		10.0	25.0	mg/L	50	19-May-2014 23:32
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 05-May-2014		Analyst: RPM	
TPH (Diesel Range)	0.69		0.021	0.053	mg/L	1	08-May-2014 01:10
Surr: 2-Fluorobiphenyl	73.6			60-135	%REC	1	08-May-2014 01:10
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: KKB			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	21-May-2014 18:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: Dup-13-0414-D
Collection Date: 28-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-04
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 16-May-2014		Analyst: ALR	
Arsenic	U		0.00100	0.00500	mg/L	1	27-May-2014 23:18
Barium	0.0190		0.000900	0.00500	mg/L	1	28-May-2014 18:59
Chromium	U		0.00100	0.00500	mg/L	1	27-May-2014 23:18
Iron	U		0.0780	0.200	mg/L	1	27-May-2014 23:18
Lead	U		0.000700	0.00500	mg/L	1	27-May-2014 23:18
Manganese	0.0215		0.00250	0.00500	mg/L	1	27-May-2014 23:18
Selenium	U		0.00100	0.00500	mg/L	1	27-May-2014 23:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-103-0414
 Collection Date: 28-Apr-2014 12:10

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-05
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 01:30
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 01:30
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 01:30
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	06-May-2014 01:30
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 01:30
1,2,4-Trimethylbenzene	0.015		0.00050	0.0050	mg/L	1	06-May-2014 01:30
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	06-May-2014 01:30
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 01:30
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	06-May-2014 01:30
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 01:30
2-Butanone	U		0.0010	0.010	mg/L	1	06-May-2014 01:30
2-Hexanone	U		0.0010	0.010	mg/L	1	06-May-2014 01:30
4-Isopropyltoluene	0.0036	J	0.00050	0.0050	mg/L	1	06-May-2014 01:30
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	06-May-2014 01:30
Acetone	U		0.0020	0.010	mg/L	1	06-May-2014 01:30
Benzene	0.76		0.0060	0.050	mg/L	10	06-May-2014 01:55
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	06-May-2014 01:30
Bromoform	U		0.00050	0.0050	mg/L	1	06-May-2014 01:30
Bromomethane	U		0.00050	0.0050	mg/L	1	06-May-2014 01:30
Carbon disulfide	U		0.00090	0.010	mg/L	1	06-May-2014 01:30
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	06-May-2014 01:30
Chlorobenzene	U		0.00040	0.0050	mg/L	1	06-May-2014 01:30
Chloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 01:30
Chloroform	U		0.00060	0.0050	mg/L	1	06-May-2014 01:30
Chloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 01:30
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 01:30
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 01:30
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 01:30
Ethylbenzene	0.15		0.00050	0.0050	mg/L	1	06-May-2014 01:30
Isopropylbenzene	0.031		0.00050	0.0050	mg/L	1	06-May-2014 01:30
m,p-Xylene	0.012		0.00060	0.010	mg/L	1	06-May-2014 01:30
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	06-May-2014 01:30
Methylene chloride	U		0.0010	0.010	mg/L	1	06-May-2014 01:30
Naphthalene	0.051		0.00070	0.0050	mg/L	1	06-May-2014 01:30
n-Butylbenzene	0.0061		0.0010	0.0050	mg/L	1	06-May-2014 01:30
n-Propylbenzene	0.046		0.00050	0.0050	mg/L	1	06-May-2014 01:30
o-Xylene	0.0045	J	0.00050	0.0050	mg/L	1	06-May-2014 01:30
sec-Butylbenzene	0.0058		0.00060	0.0050	mg/L	1	06-May-2014 01:30
Styrene	U		0.00050	0.0050	mg/L	1	06-May-2014 01:30
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 01:30
Toluene	0.0094		0.00050	0.0050	mg/L	1	06-May-2014 01:30
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	06-May-2014 01:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-103-0414
 Collection Date: 28-Apr-2014 12:10

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-05
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 01:30
Trichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 01:30
Vinyl chloride	U		0.00040	0.0020	mg/L	1	06-May-2014 01:30
Xylenes, Total	0.017		0.0015	0.015	mg/L	1	06-May-2014 01:30
Surr: 1,2-Dichloroethane-d4	106			70-125	%REC	10	06-May-2014 01:55
Surr: 1,2-Dichloroethane-d4	102			70-125	%REC	1	06-May-2014 01:30
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	06-May-2014 01:30
Surr: 4-Bromofluorobenzene	100			72-125	%REC	10	06-May-2014 01:55
Surr: Dibromofluoromethane	100			71-125	%REC	1	06-May-2014 01:30
Surr: Dibromofluoromethane	103			71-125	%REC	10	06-May-2014 01:55
Surr: Toluene-d8	100			75-125	%REC	10	06-May-2014 01:55
Surr: Toluene-d8	100			75-125	%REC	1	06-May-2014 01:30
ICP-MS METALS BY SW6020A			Method:SW6020			Prep:SW3010A / 20-May-2014 Analyst: SKS	
Arsenic	0.00270	J	0.00100	0.00500	mg/L	1	23-May-2014 20:45
Barium	1.47		0.000900	0.00500	mg/L	1	23-May-2014 20:45
Calcium	24.5		0.0670	0.500	mg/L	1	23-May-2014 20:45
Chromium	0.00289	J	0.00100	0.00500	mg/L	1	23-May-2014 20:45
Iron	U		0.0500	0.200	mg/L	1	23-May-2014 20:45
Lead	0.00153	J	0.000700	0.00500	mg/L	1	23-May-2014 20:45
Manganese	0.00278	J	0.00250	0.00500	mg/L	1	23-May-2014 20:45
Potassium	0.831		0.0500	0.200	mg/L	1	23-May-2014 20:45
Selenium	U		0.00100	0.00500	mg/L	1	23-May-2014 20:45
Sodium	1,420		5.00	20.0	mg/L	100	27-May-2014 19:11
GASOLINE RANGE ORGANICS BY SW8015C			Method:SW8015			Analyst: DNR	
Gasoline Range Organics	1.43		0.0100	0.0500	mg/L	1	05-May-2014 17:22
Surr: 4-Bromofluorobenzene	131	S		70-130	%REC	1	05-May-2014 17:22
TOTAL DISSOLVED SOLIDS BY SM2540C			Method:M2540C			Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	3,820		5.00	10.0	mg/L	1	05-May-2014 16:40
ANIONS BY E300.0			Method:E300			Analyst: KKB	
Chloride	1,040		10.0	25.0	mg/L	50	19-May-2014 23:58
Fluoride	7.45		0.0500	0.100	mg/L	1	21-May-2014 06:46
Sulfate	29.3		10.0	25.0	mg/L	50	19-May-2014 23:58
TPH DRO/ORO BY SW8015C			Method:SW8015M			Prep:SW3511 / 05-May-2014 Analyst: RPM	
TPH (Diesel Range)	5.9		0.021	0.051	mg/L	1	08-May-2014 02:30
Surr: 2-Fluorobiphenyl	106			60-135	%REC	1	08-May-2014 02:30
NITRATE/NITRITE BY E300.0			Method:E300			Analyst: KKB	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	21-May-2014 19:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-103-0414-D
Collection Date: 28-Apr-2014 12:10

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-06
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 16-May-2014		Analyst: ALR	
Arsenic	U		0.00100	0.00500	mg/L	1	27-May-2014 23:22
Barium	0.988		0.00900	0.0500	mg/L	10	28-May-2014 19:03
Chromium	U		0.00100	0.00500	mg/L	1	27-May-2014 23:22
Iron	U		0.0780	0.200	mg/L	1	27-May-2014 23:22
Lead	0.00106	J	0.000700	0.00500	mg/L	1	27-May-2014 23:22
Manganese	U		0.00250	0.00500	mg/L	1	27-May-2014 23:22
Selenium	U		0.00100	0.00500	mg/L	1	27-May-2014 23:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-101-0414
 Collection Date: 28-Apr-2014 12:35

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-07
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	05-May-2014 23:54
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	05-May-2014 23:54
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	05-May-2014 23:54
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	05-May-2014 23:54
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	05-May-2014 23:54
1,2,4-Trimethylbenzene	0.0022	J	0.00050	0.0050	mg/L	1	05-May-2014 23:54
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	05-May-2014 23:54
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	05-May-2014 23:54
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	05-May-2014 23:54
1,3,5-Trimethylbenzene	0.00092	J	0.00060	0.0050	mg/L	1	05-May-2014 23:54
2-Butanone	U		0.0010	0.010	mg/L	1	05-May-2014 23:54
2-Hexanone	U		0.0010	0.010	mg/L	1	05-May-2014 23:54
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	05-May-2014 23:54
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	05-May-2014 23:54
Acetone	0.0070	J	0.0020	0.010	mg/L	1	05-May-2014 23:54
Benzene	1.1		0.0060	0.050	mg/L	10	06-May-2014 01:06
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	05-May-2014 23:54
Bromoform	U		0.00050	0.0050	mg/L	1	05-May-2014 23:54
Bromomethane	U		0.00050	0.0050	mg/L	1	05-May-2014 23:54
Carbon disulfide	U		0.00090	0.010	mg/L	1	05-May-2014 23:54
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	05-May-2014 23:54
Chlorobenzene	U		0.00040	0.0050	mg/L	1	05-May-2014 23:54
Chloroethane	U		0.00050	0.0050	mg/L	1	05-May-2014 23:54
Chloroform	U		0.00060	0.0050	mg/L	1	05-May-2014 23:54
Chloromethane	U		0.00050	0.0050	mg/L	1	05-May-2014 23:54
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	05-May-2014 23:54
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	05-May-2014 23:54
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	05-May-2014 23:54
Ethylbenzene	0.015		0.00050	0.0050	mg/L	1	05-May-2014 23:54
Isopropylbenzene	0.0074		0.00050	0.0050	mg/L	1	05-May-2014 23:54
m,p-Xylene	0.011		0.00060	0.010	mg/L	1	05-May-2014 23:54
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	05-May-2014 23:54
Methylene chloride	U		0.0010	0.010	mg/L	1	05-May-2014 23:54
Naphthalene	0.0029	J	0.00070	0.0050	mg/L	1	05-May-2014 23:54
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	05-May-2014 23:54
n-Propylbenzene	0.0032	J	0.00050	0.0050	mg/L	1	05-May-2014 23:54
o-Xylene	U		0.00050	0.0050	mg/L	1	05-May-2014 23:54
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	05-May-2014 23:54
Styrene	U		0.00050	0.0050	mg/L	1	05-May-2014 23:54
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	05-May-2014 23:54
Toluene	0.0038	J	0.00050	0.0050	mg/L	1	05-May-2014 23:54
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	05-May-2014 23:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-101-0414
 Collection Date: 28-Apr-2014 12:35

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-07
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	05-May-2014 23:54
Trichloroethene	U		0.00050	0.0050	mg/L	1	05-May-2014 23:54
Vinyl chloride	U		0.00040	0.0020	mg/L	1	05-May-2014 23:54
Xylenes, Total	0.011	J	0.0015	0.015	mg/L	1	05-May-2014 23:54
Surr: 1,2-Dichloroethane-d4	104			70-125	%REC	1	05-May-2014 23:54
Surr: 1,2-Dichloroethane-d4	106			70-125	%REC	10	06-May-2014 01:06
Surr: 4-Bromofluorobenzene	99.5			72-125	%REC	10	06-May-2014 01:06
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	05-May-2014 23:54
Surr: Dibromofluoromethane	105			71-125	%REC	10	06-May-2014 01:06
Surr: Dibromofluoromethane	100			71-125	%REC	1	05-May-2014 23:54
Surr: Toluene-d8	101			75-125	%REC	1	05-May-2014 23:54
Surr: Toluene-d8	99.4			75-125	%REC	10	06-May-2014 01:06
ICP-MS METALS BY SW6020A			Method:SW6020			Prep:SW3010A / 20-May-2014 Analyst: SKS	
Arsenic	0.0320		0.00100	0.00500	mg/L	1	23-May-2014 20:47
Barium	0.0837		0.000900	0.00500	mg/L	1	23-May-2014 20:47
Calcium	209		0.670	5.00	mg/L	10	27-May-2014 19:13
Chromium	U		0.00100	0.00500	mg/L	1	23-May-2014 20:47
Iron	1.42		0.0500	0.200	mg/L	1	23-May-2014 20:47
Lead	U		0.000700	0.00500	mg/L	1	23-May-2014 20:47
Manganese	1.12		0.00250	0.00500	mg/L	1	23-May-2014 20:47
Potassium	0.504		0.0500	0.200	mg/L	1	23-May-2014 20:47
Selenium	U		0.00100	0.00500	mg/L	1	23-May-2014 20:47
Sodium	153		0.500	2.00	mg/L	10	27-May-2014 19:13
GASOLINE RANGE ORGANICS BY SW8015C			Method:SW8015			Analyst: DNR	
Gasoline Range Organics	4.56		0.0100	0.0500	mg/L	1	05-May-2014 18:17
Surr: 4-Bromofluorobenzene	120			70-130	%REC	1	05-May-2014 18:17
TOTAL DISSOLVED SOLIDS BY SM2540C			Method:M2540C			Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	1,440		5.00	10.0	mg/L	1	05-May-2014 16:40
ANIONS BY E300.0			Method:E300			Analyst: KKB	
Chloride	217		10.0	25.0	mg/L	50	20-May-2014 00:24
Fluoride	0.779		0.0500	0.100	mg/L	1	21-May-2014 07:10
Sulfate	161		10.0	25.0	mg/L	50	20-May-2014 00:24
TPH DRO/ORO BY SW8015C			Method:SW8015M			Prep:SW3511 / 05-May-2014 Analyst: RPM	
TPH (Diesel Range)	4.3		0.021	0.051	mg/L	1	08-May-2014 02:57
Surr: 2-Fluorobiphenyl	93.4			60-135	%REC	1	08-May-2014 02:57
NITRATE/NITRITE BY E300.0			Method:E300			Analyst: KKB	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	21-May-2014 19:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-101-0414-D
Collection Date: 28-Apr-2014 12:35

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-08
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 16-May-2014		Analyst: ALR	
Arsenic	0.0378		0.00100	0.00500	mg/L	1	27-May-2014 23:27
Barium	0.0718		0.000900	0.00500	mg/L	1	28-May-2014 19:08
Chromium	0.00404	J	0.00100	0.00500	mg/L	1	27-May-2014 23:27
Iron	1.64		0.0780	0.200	mg/L	1	27-May-2014 23:27
Lead	U		0.000700	0.00500	mg/L	1	27-May-2014 23:27
Manganese	1.16		0.00250	0.00500	mg/L	1	27-May-2014 23:27
Selenium	U		0.00100	0.00500	mg/L	1	27-May-2014 23:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-29-0414
 Collection Date: 28-Apr-2014 13:10

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-09
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 04:18
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 04:18
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 04:18
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	06-May-2014 04:18
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 04:18
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 04:18
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	06-May-2014 04:18
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 04:18
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	06-May-2014 04:18
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 04:18
2-Butanone	U		0.0010	0.010	mg/L	1	06-May-2014 04:18
2-Hexanone	U		0.0010	0.010	mg/L	1	06-May-2014 04:18
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	06-May-2014 04:18
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	06-May-2014 04:18
Acetone	U		0.0020	0.010	mg/L	1	06-May-2014 04:18
Benzene	U		0.00060	0.0050	mg/L	1	06-May-2014 04:18
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	06-May-2014 04:18
Bromoform	U		0.00050	0.0050	mg/L	1	06-May-2014 04:18
Bromomethane	U		0.00050	0.0050	mg/L	1	06-May-2014 04:18
Carbon disulfide	U		0.00090	0.010	mg/L	1	06-May-2014 04:18
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	06-May-2014 04:18
Chlorobenzene	U		0.00040	0.0050	mg/L	1	06-May-2014 04:18
Chloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 04:18
Chloroform	U		0.00060	0.0050	mg/L	1	06-May-2014 04:18
Chloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 04:18
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 04:18
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 04:18
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 04:18
Ethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 04:18
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 04:18
m,p-Xylene	U		0.00060	0.010	mg/L	1	06-May-2014 04:18
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	06-May-2014 04:18
Methylene chloride	U		0.0010	0.010	mg/L	1	06-May-2014 04:18
Naphthalene	0.0026	J	0.00070	0.0050	mg/L	1	06-May-2014 04:18
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	06-May-2014 04:18
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 04:18
o-Xylene	U		0.00050	0.0050	mg/L	1	06-May-2014 04:18
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 04:18
Styrene	U		0.00050	0.0050	mg/L	1	06-May-2014 04:18
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 04:18
Toluene	U		0.00050	0.0050	mg/L	1	06-May-2014 04:18
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	06-May-2014 04:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-29-0414
 Collection Date: 28-Apr-2014 13:10

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-09
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 04:18
Trichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 04:18
Vinyl chloride	U		0.00040	0.0020	mg/L	1	06-May-2014 04:18
Xylenes, Total	U		0.0015	0.015	mg/L	1	06-May-2014 04:18
Surr: 1,2-Dichloroethane-d4	106			70-125	%REC	1	06-May-2014 04:18
Surr: 4-Bromofluorobenzene	99.3			72-125	%REC	1	06-May-2014 04:18
Surr: Dibromofluoromethane	102			71-125	%REC	1	06-May-2014 04:18
Surr: Toluene-d8	99.6			75-125	%REC	1	06-May-2014 04:18
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 20-May-2014 Analyst: SKS			
Arsenic	0.00836		0.00100	0.00500	mg/L	1	23-May-2014 20:55
Barium	0.0157		0.000900	0.00500	mg/L	1	23-May-2014 20:55
Calcium	539		0.670	5.00	mg/L	10	27-May-2014 19:16
Chromium	U		0.00100	0.00500	mg/L	1	23-May-2014 20:55
Iron	0.228		0.0500	0.200	mg/L	1	23-May-2014 20:55
Lead	0.000730	J	0.000700	0.00500	mg/L	1	23-May-2014 20:55
Manganese	0.558		0.00250	0.00500	mg/L	1	23-May-2014 20:55
Potassium	9.84		0.0500	0.200	mg/L	1	23-May-2014 20:55
Selenium	0.00119	J	0.00100	0.00500	mg/L	1	23-May-2014 20:55
Sodium	293		0.500	2.00	mg/L	10	27-May-2014 19:16
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	0.0569		0.0100	0.0500	mg/L	1	05-May-2014 18:35
Surr: 4-Bromofluorobenzene	119			70-130	%REC	1	05-May-2014 18:35
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	4,860		5.00	10.0	mg/L	1	05-May-2014 16:40
ANIONS BY E300.0		Method:E300		Analyst: KKB			
Chloride	319		10.0	25.0	mg/L	50	20-May-2014 00:50
Fluoride	2.66		0.0500	0.100	mg/L	1	21-May-2014 07:34
Sulfate	2,450		10.0	25.0	mg/L	50	20-May-2014 00:50
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 05-May-2014 Analyst: RPM			
TPH (Diesel Range)	0.51		0.021	0.052	mg/L	1	08-May-2014 03:23
Surr: 2-Fluorobiphenyl	67.5			60-135	%REC	1	08-May-2014 03:23
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: KKB			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	21-May-2014 19:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-29-0414-D
Collection Date: 28-Apr-2014 13:10

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-10
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 16-May-2014		Analyst: ALR	
Arsenic	0.00753		0.00100	0.00500	mg/L	1	27-May-2014 23:32
Barium	0.0141		0.000900	0.00500	mg/L	1	28-May-2014 19:12
Chromium	U		0.00100	0.00500	mg/L	1	27-May-2014 23:32
Iron	0.241		0.0780	0.200	mg/L	1	27-May-2014 23:32
Lead	U		0.000700	0.00500	mg/L	1	27-May-2014 23:32
Manganese	0.624		0.00250	0.00500	mg/L	1	27-May-2014 23:32
Selenium	U		0.00100	0.00500	mg/L	1	27-May-2014 23:32

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-66-0414
 Collection Date: 28-Apr-2014 13:45

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-11
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 02:19
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 02:19
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 02:19
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	06-May-2014 02:19
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 02:19
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 02:19
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	06-May-2014 02:19
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 02:19
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	06-May-2014 02:19
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 02:19
2-Butanone	U		0.0010	0.010	mg/L	1	06-May-2014 02:19
2-Hexanone	U		0.0010	0.010	mg/L	1	06-May-2014 02:19
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	06-May-2014 02:19
4-Methyl-2-pentanone	0.0031	J	0.0010	0.010	mg/L	1	06-May-2014 02:19
Acetone	0.0072	J	0.0020	0.010	mg/L	1	06-May-2014 02:19
Benzene	0.89		0.015	0.12	mg/L	25	06-May-2014 02:43
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	06-May-2014 02:19
Bromoform	U		0.00050	0.0050	mg/L	1	06-May-2014 02:19
Bromomethane	U		0.00050	0.0050	mg/L	1	06-May-2014 02:19
Carbon disulfide	U		0.00090	0.010	mg/L	1	06-May-2014 02:19
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	06-May-2014 02:19
Chlorobenzene	U		0.00040	0.0050	mg/L	1	06-May-2014 02:19
Chloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 02:19
Chloroform	U		0.00060	0.0050	mg/L	1	06-May-2014 02:19
Chloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 02:19
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 02:19
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 02:19
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 02:19
Ethylbenzene	0.0039	J	0.00050	0.0050	mg/L	1	06-May-2014 02:19
Isopropylbenzene	0.030		0.00050	0.0050	mg/L	1	06-May-2014 02:19
m,p-Xylene	0.0055	J	0.00060	0.010	mg/L	1	06-May-2014 02:19
Methyl tert-butyl ether	2.3		0.015	0.12	mg/L	25	06-May-2014 02:43
Methylene chloride	U		0.0010	0.010	mg/L	1	06-May-2014 02:19
Naphthalene	0.055		0.00070	0.0050	mg/L	1	06-May-2014 02:19
n-Butylbenzene	0.0069		0.0010	0.0050	mg/L	1	06-May-2014 02:19
n-Propylbenzene	0.038		0.00050	0.0050	mg/L	1	06-May-2014 02:19
o-Xylene	0.0014	J	0.00050	0.0050	mg/L	1	06-May-2014 02:19
sec-Butylbenzene	0.0071		0.00060	0.0050	mg/L	1	06-May-2014 02:19
Styrene	U		0.00050	0.0050	mg/L	1	06-May-2014 02:19
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 02:19
Toluene	0.0027	J	0.00050	0.0050	mg/L	1	06-May-2014 02:19
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	06-May-2014 02:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-66-0414
 Collection Date: 28-Apr-2014 13:45

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-11
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 02:19
Trichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 02:19
Vinyl chloride	U		0.00040	0.0020	mg/L	1	06-May-2014 02:19
Xylenes, Total	0.0069	J	0.0015	0.015	mg/L	1	06-May-2014 02:19
Surr: 1,2-Dichloroethane-d4	106			70-125	%REC	25	06-May-2014 02:43
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	06-May-2014 02:19
Surr: 4-Bromofluorobenzene	99.2			72-125	%REC	25	06-May-2014 02:43
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	06-May-2014 02:19
Surr: Dibromofluoromethane	105			71-125	%REC	25	06-May-2014 02:43
Surr: Dibromofluoromethane	103			71-125	%REC	1	06-May-2014 02:19
Surr: Toluene-d8	100			75-125	%REC	25	06-May-2014 02:43
Surr: Toluene-d8	102			75-125	%REC	1	06-May-2014 02:19
ICP-MS METALS BY SW6020A			Method:SW6020			Prep:SW3010A / 20-May-2014 Analyst: SKS	
Arsenic	0.00300	J	0.00100	0.00500	mg/L	1	23-May-2014 20:58
Barium	1.90		0.00900	0.0500	mg/L	10	27-May-2014 19:18
Calcium	151		0.670	5.00	mg/L	10	27-May-2014 19:18
Chromium	U		0.00100	0.00500	mg/L	1	23-May-2014 20:58
Iron	0.397		0.0500	0.200	mg/L	1	23-May-2014 20:58
Lead	U		0.000700	0.00500	mg/L	1	23-May-2014 20:58
Manganese	0.335		0.0250	0.0500	mg/L	10	27-May-2014 19:18
Nickel	0.00857		0.00100	0.00500	mg/L	1	23-May-2014 20:58
Potassium	0.785		0.0500	0.200	mg/L	1	23-May-2014 20:58
Selenium	U		0.00100	0.00500	mg/L	1	23-May-2014 20:58
Sodium	180		0.500	2.00	mg/L	10	27-May-2014 19:18
Vanadium	U		0.000900	0.00500	mg/L	1	23-May-2014 20:58
CYANIDE BY SW9012B			Method:SW9012			Prep:SW9010C / 05-May-2014 Analyst: KKB	
Cyanide	0.0150	J	0.00500	0.0200	mg/L	1	06-May-2014 18:08
GASOLINE RANGE ORGANICS BY SW8015C			Method:SW8015			Analyst: DNR	
Gasoline Range Organics	6.64		0.0100	0.0500	mg/L	1	06-May-2014 14:42
Surr: 4-Bromofluorobenzene	110			70-130	%REC	1	06-May-2014 14:42
MERCURY BY SW7470A			Method:SW7470			Prep:SW7470 / 20-May-2014 Analyst: JBA	
Mercury	U		0.0000400	0.000200	mg/L	1	20-May-2014 23:00
TOTAL DISSOLVED SOLIDS BY SM2540C			Method:M2540C			Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	1,170		5.00	10.0	mg/L	1	05-May-2014 16:40
ANIONS BY E300.0			Method:E300			Analyst: KKB	
Chloride	209		10.0	25.0	mg/L	50	20-May-2014 01:16
Fluoride	1.12		0.0500	0.100	mg/L	1	21-May-2014 07:58
Sulfate	2.02		0.200	0.500	mg/L	1	21-May-2014 07:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-66-0414
Collection Date: 28-Apr-2014 13:45

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-11
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 05-May-2014		Analyst: RPM	
TPH (Diesel Range)	2.1		0.021	0.052	mg/L	1	08-May-2014 03:50
<i>Surr: 2-Fluorobiphenyl</i>	<i>88.3</i>			<i>60-135</i>	<i>%REC</i>	<i>1</i>	<i>08-May-2014 03:50</i>
NITRATE/NITRITE BY E300.0		Method:E300				Analyst: KKB	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	21-May-2014 19:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-66-0414-D
 Collection Date: 28-Apr-2014 13:45

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-12
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020			Prep:SW3010A / 16-May-2014		Analyst: ALR
Arsenic	0.00139	J	0.00100	0.00500	mg/L	1	27-May-2014 23:36
Barium	1.47		0.00900	0.0500	mg/L	10	28-May-2014 19:16
Chromium	U		0.00100	0.00500	mg/L	1	27-May-2014 23:36
Iron	0.480		0.0780	0.200	mg/L	1	27-May-2014 23:36
Lead	U		0.000700	0.00500	mg/L	1	27-May-2014 23:36
Manganese	0.294		0.00250	0.00500	mg/L	1	27-May-2014 23:36
Nickel	0.00861		0.00100	0.00500	mg/L	1	27-May-2014 23:36
Selenium	U		0.00100	0.00500	mg/L	1	27-May-2014 23:36
Vanadium	U		0.000900	0.00500	mg/L	1	27-May-2014 23:36
DISSOLVED MERCURY BY SW7470A		Method:SW7470			Prep:SW7470 / 27-May-2014		Analyst: JBA
Mercury	U	H	0.0000420	0.000200	mg/L	1	27-May-2014 17:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-28-0414
 Collection Date: 28-Apr-2014 14:20

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-13
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	08-May-2014 18:39
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	08-May-2014 18:39
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	08-May-2014 18:39
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	08-May-2014 18:39
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	08-May-2014 18:39
1,2,4-Trimethylbenzene	0.00069	J	0.00050	0.0050	mg/L	1	08-May-2014 18:39
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	08-May-2014 18:39
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	08-May-2014 18:39
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	08-May-2014 18:39
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	08-May-2014 18:39
2-Butanone	U		0.0010	0.010	mg/L	1	08-May-2014 18:39
2-Hexanone	U		0.0010	0.010	mg/L	1	08-May-2014 18:39
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	08-May-2014 18:39
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	08-May-2014 18:39
Acetone	0.0035	J	0.0020	0.010	mg/L	1	08-May-2014 18:39
Benzene	0.81		0.015	0.12	mg/L	25	08-May-2014 19:03
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	08-May-2014 18:39
Bromoform	U		0.00050	0.0050	mg/L	1	08-May-2014 18:39
Bromomethane	U		0.00050	0.0050	mg/L	1	08-May-2014 18:39
Carbon disulfide	U		0.00090	0.010	mg/L	1	08-May-2014 18:39
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	08-May-2014 18:39
Chlorobenzene	U		0.00040	0.0050	mg/L	1	08-May-2014 18:39
Chloroethane	U		0.00050	0.0050	mg/L	1	08-May-2014 18:39
Chloroform	U		0.00060	0.0050	mg/L	1	08-May-2014 18:39
Chloromethane	U		0.00050	0.0050	mg/L	1	08-May-2014 18:39
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	08-May-2014 18:39
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	08-May-2014 18:39
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	08-May-2014 18:39
Ethylbenzene	0.0052		0.00050	0.0050	mg/L	1	08-May-2014 18:39
Isopropylbenzene	0.019		0.00050	0.0050	mg/L	1	08-May-2014 18:39
m,p-Xylene	0.0080	J	0.00060	0.010	mg/L	1	08-May-2014 18:39
Methyl tert-butyl ether	3.6		0.015	0.12	mg/L	25	08-May-2014 19:03
Methylene chloride	U		0.0010	0.010	mg/L	1	08-May-2014 18:39
Naphthalene	0.0042	J	0.00070	0.0050	mg/L	1	08-May-2014 18:39
n-Butylbenzene	0.0013	J	0.0010	0.0050	mg/L	1	08-May-2014 18:39
n-Propylbenzene	0.020		0.00050	0.0050	mg/L	1	08-May-2014 18:39
o-Xylene	0.00053	J	0.00050	0.0050	mg/L	1	08-May-2014 18:39
sec-Butylbenzene	0.0025	J	0.00060	0.0050	mg/L	1	08-May-2014 18:39
Styrene	U		0.00050	0.0050	mg/L	1	08-May-2014 18:39
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	08-May-2014 18:39
Toluene	0.0053		0.00050	0.0050	mg/L	1	08-May-2014 18:39
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	08-May-2014 18:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-28-0414
 Collection Date: 28-Apr-2014 14:20

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-13
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	08-May-2014 18:39
Trichloroethene	U		0.00050	0.0050	mg/L	1	08-May-2014 18:39
Vinyl chloride	U		0.00040	0.0020	mg/L	1	08-May-2014 18:39
Xylenes, Total	0.0086	J	0.0015	0.015	mg/L	1	08-May-2014 18:39
Surr: 1,2-Dichloroethane-d4	118			70-125	%REC	25	08-May-2014 19:03
Surr: 1,2-Dichloroethane-d4	116			70-125	%REC	1	08-May-2014 18:39
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	08-May-2014 18:39
Surr: 4-Bromofluorobenzene	99.7			72-125	%REC	25	08-May-2014 19:03
Surr: Dibromofluoromethane	107			71-125	%REC	1	08-May-2014 18:39
Surr: Dibromofluoromethane	109			71-125	%REC	25	08-May-2014 19:03
Surr: Toluene-d8	99.5			75-125	%REC	25	08-May-2014 19:03
Surr: Toluene-d8	102			75-125	%REC	1	08-May-2014 18:39
ICP-MS METALS BY SW6020A			Method:SW6020			Prep:SW3010A / 20-May-2014 Analyst: SKS	
Arsenic	0.00429	J	0.00100	0.00500	mg/L	1	23-May-2014 21:00
Barium	0.142		0.000900	0.00500	mg/L	1	23-May-2014 21:00
Calcium	164		0.0670	0.500	mg/L	1	23-May-2014 21:00
Chromium	U		0.00100	0.00500	mg/L	1	23-May-2014 21:00
Iron	U		0.0500	0.200	mg/L	1	23-May-2014 21:00
Lead	0.00320	J	0.000700	0.00500	mg/L	1	23-May-2014 21:00
Manganese	0.0397		0.00250	0.00500	mg/L	1	23-May-2014 21:00
Nickel	0.00817		0.00100	0.00500	mg/L	1	23-May-2014 21:00
Potassium	0.382		0.0500	0.200	mg/L	1	23-May-2014 21:00
Selenium	U		0.00100	0.00500	mg/L	1	23-May-2014 21:00
Sodium	102		0.0500	0.200	mg/L	1	23-May-2014 21:00
Vanadium	0.00231	J	0.000900	0.00500	mg/L	1	23-May-2014 21:00
CYANIDE BY SW9012B			Method:SW9012			Prep:SW9010C / 05-May-2014 Analyst: KKB	
Cyanide	0.0500	J	0.0500	0.200	mg/L	10	06-May-2014 18:08
GASOLINE RANGE ORGANICS BY SW8015C			Method:SW8015			Analyst: DNR	
Gasoline Range Organics	6.32		0.0100	0.0500	mg/L	1	05-May-2014 18:53
Surr: 4-Bromofluorobenzene	122			70-130	%REC	1	05-May-2014 18:53
MERCURY BY SW7470A			Method:SW7470			Prep:SW7470 / 20-May-2014 Analyst: JBA	
Mercury	U		0.0000400	0.000200	mg/L	1	20-May-2014 23:02
TOTAL DISSOLVED SOLIDS BY SM2540C			Method:M2540C			Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	1,560		5.00	10.0	mg/L	1	05-May-2014 16:40
ANIONS BY E300.0			Method:E300			Analyst: KKB	
Chloride	157		10.0	25.0	mg/L	50	20-May-2014 01:41
Fluoride	1.02		0.0500	0.100	mg/L	1	21-May-2014 08:23
Sulfate	166		10.0	25.0	mg/L	50	20-May-2014 01:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-28-0414
Collection Date: 28-Apr-2014 14:20

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-13
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 05-May-2014		Analyst: RPM	
TPH (Diesel Range)	3.0		0.020	0.051	mg/L	1	08-May-2014 04:16
<i>Surr: 2-Fluorobiphenyl</i>	<i>97.0</i>			<i>60-135</i>	<i>%REC</i>	<i>1</i>	<i>08-May-2014 04:16</i>
NITRATE/NITRITE BY E300.0		Method:E300				Analyst: KKB	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	21-May-2014 20:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-28-0414-D
 Collection Date: 28-Apr-2014 14:20

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-14
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 19-May-2014		Analyst: JCJ	
Arsenic	0.00396	J	0.00100	0.00500	mg/L	1	29-May-2014 01:02
Barium	0.131		0.000900	0.00500	mg/L	1	29-May-2014 01:02
Chromium	U		0.00100	0.00500	mg/L	1	29-May-2014 01:02
Iron	U		0.0780	0.200	mg/L	1	29-May-2014 01:02
Lead	0.00126	J	0.000700	0.00500	mg/L	1	29-May-2014 01:02
Manganese	0.0374		0.00250	0.00500	mg/L	1	29-May-2014 01:02
Nickel	0.00839		0.00100	0.00500	mg/L	1	29-May-2014 01:02
Selenium	U		0.00100	0.00500	mg/L	1	29-May-2014 01:02
Vanadium	U		0.000900	0.00500	mg/L	1	29-May-2014 01:02
DISSOLVED MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 27-May-2014		Analyst: JBA	
Mercury	U	H	0.0000420	0.000200	mg/L	1	27-May-2014 17:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-107-0414
 Collection Date: 28-Apr-2014 15:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-15
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.0050	0.050	mg/L	10	08-May-2014 21:13
1,1,2,2-Tetrachloroethane	U		0.0050	0.050	mg/L	10	08-May-2014 21:13
1,1,2-Trichloroethane	U		0.0050	0.050	mg/L	10	08-May-2014 21:13
1,1-Dichloroethane	U		0.0040	0.050	mg/L	10	08-May-2014 21:13
1,1-Dichloroethene	U		0.0050	0.050	mg/L	10	08-May-2014 21:13
1,2,4-Trimethylbenzene	0.017	J	0.0050	0.050	mg/L	10	08-May-2014 21:13
1,2-Dibromoethane	U		0.0040	0.050	mg/L	10	08-May-2014 21:13
1,2-Dichloroethane	U		0.0050	0.050	mg/L	10	08-May-2014 21:13
1,2-Dichloropropane	U		0.0070	0.050	mg/L	10	08-May-2014 21:13
1,3,5-Trimethylbenzene	0.012	J	0.0060	0.050	mg/L	10	08-May-2014 21:13
2-Butanone	U		0.010	0.10	mg/L	10	08-May-2014 21:13
2-Hexanone	U		0.010	0.10	mg/L	10	08-May-2014 21:13
4-Isopropyltoluene	U		0.0050	0.050	mg/L	10	08-May-2014 21:13
4-Methyl-2-pentanone	U		0.010	0.10	mg/L	10	08-May-2014 21:13
Acetone	U		0.020	0.10	mg/L	10	08-May-2014 21:13
Benzene	7.0		0.060	0.50	mg/L	100	08-May-2014 22:28
Bromodichloromethane	U		0.0060	0.050	mg/L	10	08-May-2014 21:13
Bromoform	U		0.0050	0.050	mg/L	10	08-May-2014 21:13
Bromomethane	U		0.0050	0.050	mg/L	10	08-May-2014 21:13
Carbon disulfide	U		0.0090	0.10	mg/L	10	08-May-2014 21:13
Carbon tetrachloride	U		0.0060	0.050	mg/L	10	08-May-2014 21:13
Chlorobenzene	U		0.0040	0.050	mg/L	10	08-May-2014 21:13
Chloroethane	U		0.0050	0.050	mg/L	10	08-May-2014 21:13
Chloroform	U		0.0060	0.050	mg/L	10	08-May-2014 21:13
Chloromethane	U		0.0050	0.050	mg/L	10	08-May-2014 21:13
cis-1,2-Dichloroethene	U		0.0060	0.050	mg/L	10	08-May-2014 21:13
cis-1,3-Dichloropropene	U		0.0060	0.050	mg/L	10	08-May-2014 21:13
Dibromochloromethane	U		0.0050	0.050	mg/L	10	08-May-2014 21:13
Ethylbenzene	0.048	J	0.0050	0.050	mg/L	10	08-May-2014 21:13
Isopropylbenzene	0.024	J	0.0050	0.050	mg/L	10	08-May-2014 21:13
m,p-Xylene	0.12		0.0060	0.10	mg/L	10	08-May-2014 21:13
Methyl tert-butyl ether	1.6		0.0060	0.050	mg/L	10	08-May-2014 21:13
Methylene chloride	U		0.010	0.10	mg/L	10	08-May-2014 21:13
Naphthalene	0.11		0.0070	0.050	mg/L	10	08-May-2014 21:13
n-Butylbenzene	U		0.010	0.050	mg/L	10	08-May-2014 21:13
n-Propylbenzene	0.031	J	0.0050	0.050	mg/L	10	08-May-2014 21:13
o-Xylene	U		0.0050	0.050	mg/L	10	08-May-2014 21:13
sec-Butylbenzene	U		0.0060	0.050	mg/L	10	08-May-2014 21:13
Styrene	U		0.0050	0.050	mg/L	10	08-May-2014 21:13
Tetrachloroethene	U		0.0060	0.050	mg/L	10	08-May-2014 21:13
Toluene	0.017	J	0.0050	0.050	mg/L	10	08-May-2014 21:13
trans-1,2-Dichloroethene	U		0.0040	0.050	mg/L	10	08-May-2014 21:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-107-0414
 Collection Date: 28-Apr-2014 15:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-15
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
trans-1,3-Dichloropropene	U		0.0060	0.050	mg/L	10	08-May-2014 21:13
Trichloroethene	U		0.0050	0.050	mg/L	10	08-May-2014 21:13
Vinyl chloride	U		0.0040	0.020	mg/L	10	08-May-2014 21:13
Xylenes, Total	0.12	J	0.015	0.15	mg/L	10	08-May-2014 21:13
Surr: 1,2-Dichloroethane-d4	97.6			70-125	%REC	100	08-May-2014 22:28
Surr: 1,2-Dichloroethane-d4	95.8			70-125	%REC	10	08-May-2014 21:13
Surr: 4-Bromofluorobenzene	99.6			72-125	%REC	10	08-May-2014 21:13
Surr: 4-Bromofluorobenzene	101			72-125	%REC	100	08-May-2014 22:28
Surr: Dibromofluoromethane	103			71-125	%REC	100	08-May-2014 22:28
Surr: Dibromofluoromethane	98.8			71-125	%REC	10	08-May-2014 21:13
Surr: Toluene-d8	96.2			75-125	%REC	100	08-May-2014 22:28
Surr: Toluene-d8	96.6			75-125	%REC	10	08-May-2014 21:13
ICP-MS METALS BY SW6020A			Method:SW6020			Prep:SW3010A / 20-May-2014 Analyst: SKS	
Arsenic	0.00688		0.00100	0.00500	mg/L	1	23-May-2014 21:03
Barium	2.74		0.00900	0.0500	mg/L	10	27-May-2014 19:21
Calcium	144		0.670	5.00	mg/L	10	27-May-2014 19:21
Chromium	U		0.00100	0.00500	mg/L	1	23-May-2014 21:03
Iron	10.1		0.0500	0.200	mg/L	1	23-May-2014 21:03
Lead	U		0.000700	0.00500	mg/L	1	23-May-2014 21:03
Manganese	0.270		0.00250	0.00500	mg/L	1	23-May-2014 21:03
Potassium	0.562		0.0500	0.200	mg/L	1	23-May-2014 21:03
Selenium	U		0.00100	0.00500	mg/L	1	23-May-2014 21:03
Sodium	75.2		0.500	2.00	mg/L	10	27-May-2014 19:21
GASOLINE RANGE ORGANICS BY SW8015C			Method:SW8015			Analyst: DNR	
Gasoline Range Organics	7.32		0.0100	0.0500	mg/L	1	05-May-2014 20:09
Surr: 4-Bromofluorobenzene	73.3			70-130	%REC	1	05-May-2014 20:09
TOTAL DISSOLVED SOLIDS BY SM2540C			Method:M2540C			Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	1,250		5.00	10.0	mg/L	1	05-May-2014 16:40
ANIONS BY E300.0			Method:E300			Analyst: KKB	
Chloride	261		10.0	25.0	mg/L	50	20-May-2014 02:59
Fluoride	1.20		0.0500	0.100	mg/L	1	21-May-2014 09:35
Sulfate	0.467	J	0.200	0.500	mg/L	1	21-May-2014 09:35
TPH DRO/ORO BY SW8015C			Method:SW8015M			Prep:SW3511 / 05-May-2014 Analyst: RPM	
TPH (Diesel Range)	4.9		0.021	0.052	mg/L	1	08-May-2014 04:43
Surr: 2-Fluorobiphenyl	94.1			60-135	%REC	1	08-May-2014 04:43
NITRATE/NITRITE BY E300.0			Method:E300			Analyst: KKB	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	21-May-2014 20:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-107-0414-D
Collection Date: 28-Apr-2014 15:00

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-16
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 19-May-2014		Analyst: JCJ	
Arsenic	0.00681		0.00100	0.00500	mg/L	1	29-May-2014 01:07
Barium	2.58		0.00900	0.0500	mg/L	10	31-May-2014 21:17
Chromium	U		0.00100	0.00500	mg/L	1	29-May-2014 01:07
Iron	10.8		0.0780	0.200	mg/L	1	29-May-2014 01:07
Lead	U		0.000700	0.00500	mg/L	1	29-May-2014 01:07
Manganese	0.289		0.00250	0.00500	mg/L	1	29-May-2014 01:07
Selenium	U		0.00100	0.00500	mg/L	1	29-May-2014 01:07

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: EB-17-0414
 Collection Date: 28-Apr-2014 16:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-17
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:07
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:07
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:07
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	06-May-2014 03:07
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:07
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:07
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	06-May-2014 03:07
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:07
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	06-May-2014 03:07
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 03:07
2-Butanone	U		0.0010	0.010	mg/L	1	06-May-2014 03:07
2-Hexanone	U		0.0010	0.010	mg/L	1	06-May-2014 03:07
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:07
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	06-May-2014 03:07
Acetone	0.0082	J	0.0020	0.010	mg/L	1	06-May-2014 03:07
Benzene	U		0.00060	0.0050	mg/L	1	06-May-2014 03:07
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	06-May-2014 03:07
Bromoform	U		0.00050	0.0050	mg/L	1	06-May-2014 03:07
Bromomethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:07
Carbon disulfide	U		0.00090	0.010	mg/L	1	06-May-2014 03:07
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	06-May-2014 03:07
Chlorobenzene	U		0.00040	0.0050	mg/L	1	06-May-2014 03:07
Chloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:07
Chloroform	U		0.00060	0.0050	mg/L	1	06-May-2014 03:07
Chloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:07
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 03:07
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 03:07
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 03:07
Ethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:07
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:07
m,p-Xylene	U		0.00060	0.010	mg/L	1	06-May-2014 03:07
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	06-May-2014 03:07
Methylene chloride	U		0.0010	0.010	mg/L	1	06-May-2014 03:07
Naphthalene	U		0.00070	0.0050	mg/L	1	06-May-2014 03:07
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	06-May-2014 03:07
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:07
o-Xylene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:07
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 03:07
Styrene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:07
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 03:07
Toluene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:07
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	06-May-2014 03:07

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: EB-17-0414
 Collection Date: 28-Apr-2014 16:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-17
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 03:07
Trichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 03:07
Vinyl chloride	U		0.00040	0.0020	mg/L	1	06-May-2014 03:07
Xylenes, Total	U		0.0015	0.015	mg/L	1	06-May-2014 03:07
Surr: 1,2-Dichloroethane-d4	105			70-125	%REC	1	06-May-2014 03:07
Surr: 4-Bromofluorobenzene	98.3			72-125	%REC	1	06-May-2014 03:07
Surr: Dibromofluoromethane	104			71-125	%REC	1	06-May-2014 03:07
Surr: Toluene-d8	99.6			75-125	%REC	1	06-May-2014 03:07
ICP-MS METALS BY SW6020A			Method:SW6020			Prep:SW3010A / 20-May-2014 Analyst: SKS	
Arsenic	U		0.00100	0.00500	mg/L	1	23-May-2014 21:05
Barium	0.00944		0.000900	0.00500	mg/L	1	23-May-2014 21:05
Calcium	0.536		0.0670	0.500	mg/L	1	23-May-2014 21:05
Chromium	0.00157	J	0.00100	0.00500	mg/L	1	23-May-2014 21:05
Iron	U		0.0500	0.200	mg/L	1	23-May-2014 21:05
Lead	U		0.000700	0.00500	mg/L	1	23-May-2014 21:05
Manganese	U		0.00250	0.00500	mg/L	1	23-May-2014 21:05
Nickel	U		0.00100	0.00500	mg/L	1	23-May-2014 21:05
Potassium	U		0.0500	0.200	mg/L	1	23-May-2014 21:05
Selenium	U		0.00100	0.00500	mg/L	1	23-May-2014 21:05
Sodium	0.585		0.0500	0.200	mg/L	1	23-May-2014 21:05
Vanadium	0.00614		0.000900	0.00500	mg/L	1	23-May-2014 21:05
CYANIDE BY SW9012B			Method:SW9012			Prep:SW9010C / 05-May-2014 Analyst: KKB	
Cyanide	0.00700	J	0.00500	0.0200	mg/L	1	06-May-2014 18:08
GASOLINE RANGE ORGANICS BY SW8015C			Method:SW8015			Analyst: DNR	
Gasoline Range Organics	0.0416	J	0.0100	0.0500	mg/L	1	05-May-2014 20:45
Surr: 4-Bromofluorobenzene	74.1			70-130	%REC	1	05-May-2014 20:45
MERCURY BY SW7470A			Method:SW7470			Prep:SW7470 / 27-May-2014 Analyst: JBA	
Mercury	U	H	0.0000400	0.000200	mg/L	1	28-May-2014 11:53
TOTAL DISSOLVED SOLIDS BY SM2540C			Method:M2540C			Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	U		5.00	10.0	mg/L	1	05-May-2014 16:40
ANIONS BY E300.0			Method:E300			Analyst: KKB	
Chloride	U		0.200	0.500	mg/L	1	21-May-2014 09:59
Fluoride	U		0.0500	0.100	mg/L	1	21-May-2014 09:59
Sulfate	0.231	J	0.200	0.500	mg/L	1	21-May-2014 09:59
TPH DRO/ORO BY SW8015C			Method:SW8015M			Prep:SW3511 / 05-May-2014 Analyst: RPM	
TPH (Diesel Range)	0.031	J	0.021	0.053	mg/L	1	08-May-2014 05:09
Surr: 2-Fluorobiphenyl	62.8			60-135	%REC	1	08-May-2014 05:09
NITRATE/NITRITE BY E300.0			Method:E300			Analyst: KKB	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	21-May-2014 21:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: EB-17-0414-D
Collection Date: 28-Apr-2014 16:00

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-18
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 19-May-2014		Analyst: JCJ	
Arsenic	U		0.00100	0.00500	mg/L	1	29-May-2014 01:12
Barium	U		0.000900	0.00500	mg/L	1	29-May-2014 01:12
Chromium	U		0.00100	0.00500	mg/L	1	29-May-2014 01:12
Iron	U		0.0780	0.200	mg/L	1	29-May-2014 01:12
Lead	U		0.000700	0.00500	mg/L	1	29-May-2014 01:12
Manganese	U		0.00250	0.00500	mg/L	1	29-May-2014 01:12
Nickel	U		0.00100	0.00500	mg/L	1	29-May-2014 01:12
Selenium	U		0.00100	0.00500	mg/L	1	29-May-2014 01:12
Vanadium	U		0.000900	0.00500	mg/L	1	29-May-2014 01:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-61-0414
 Collection Date: 29-Apr-2014 08:15

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-19
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.0025	0.025	mg/L	5	08-May-2014 20:48
1,1,2,2-Tetrachloroethane	U		0.0025	0.025	mg/L	5	08-May-2014 20:48
1,1,2-Trichloroethane	U		0.0025	0.025	mg/L	5	08-May-2014 20:48
1,1-Dichloroethane	U		0.0020	0.025	mg/L	5	08-May-2014 20:48
1,1-Dichloroethene	U		0.0025	0.025	mg/L	5	08-May-2014 20:48
1,2,4-Trimethylbenzene	0.20		0.0025	0.025	mg/L	5	08-May-2014 20:48
1,2-Dibromoethane	U		0.0020	0.025	mg/L	5	08-May-2014 20:48
1,2-Dichloroethane	U		0.0025	0.025	mg/L	5	08-May-2014 20:48
1,2-Dichloropropane	U		0.0035	0.025	mg/L	5	08-May-2014 20:48
1,3,5-Trimethylbenzene	0.0058	J	0.0030	0.025	mg/L	5	08-May-2014 20:48
2-Butanone	U		0.0050	0.050	mg/L	5	08-May-2014 20:48
2-Hexanone	U		0.0050	0.050	mg/L	5	08-May-2014 20:48
4-Isopropyltoluene	0.0045	J	0.0025	0.025	mg/L	5	08-May-2014 20:48
4-Methyl-2-pentanone	U		0.0050	0.050	mg/L	5	08-May-2014 20:48
Acetone	U		0.010	0.050	mg/L	5	08-May-2014 20:48
Benzene	1.6		0.015	0.12	mg/L	25	08-May-2014 20:22
Bromodichloromethane	U		0.0030	0.025	mg/L	5	08-May-2014 20:48
Bromoform	U		0.0025	0.025	mg/L	5	08-May-2014 20:48
Bromomethane	U		0.0025	0.025	mg/L	5	08-May-2014 20:48
Carbon disulfide	U		0.0045	0.050	mg/L	5	08-May-2014 20:48
Carbon tetrachloride	U		0.0030	0.025	mg/L	5	08-May-2014 20:48
Chlorobenzene	U		0.0020	0.025	mg/L	5	08-May-2014 20:48
Chloroethane	U		0.0025	0.025	mg/L	5	08-May-2014 20:48
Chloroform	0.059		0.0030	0.025	mg/L	5	08-May-2014 20:48
Chloromethane	U		0.0025	0.025	mg/L	5	08-May-2014 20:48
cis-1,2-Dichloroethene	U		0.0030	0.025	mg/L	5	08-May-2014 20:48
cis-1,3-Dichloropropene	U		0.0030	0.025	mg/L	5	08-May-2014 20:48
Dibromochloromethane	U		0.0025	0.025	mg/L	5	08-May-2014 20:48
Ethylbenzene	0.11		0.0025	0.025	mg/L	5	08-May-2014 20:48
Isopropylbenzene	0.065		0.0025	0.025	mg/L	5	08-May-2014 20:48
m,p-Xylene	0.41		0.0030	0.050	mg/L	5	08-May-2014 20:48
Methyl tert-butyl ether	U		0.0030	0.025	mg/L	5	08-May-2014 20:48
Methylene chloride	U		0.0050	0.050	mg/L	5	08-May-2014 20:48
Naphthalene	0.14		0.0035	0.025	mg/L	5	08-May-2014 20:48
n-Butylbenzene	0.0059	J	0.0050	0.025	mg/L	5	08-May-2014 20:48
n-Propylbenzene	0.083		0.0025	0.025	mg/L	5	08-May-2014 20:48
o-Xylene	0.0041	J	0.0025	0.025	mg/L	5	08-May-2014 20:48
sec-Butylbenzene	0.0067	J	0.0030	0.025	mg/L	5	08-May-2014 20:48
Styrene	U		0.0025	0.025	mg/L	5	08-May-2014 20:48
Tetrachloroethene	U		0.0030	0.025	mg/L	5	08-May-2014 20:48
Toluene	0.093		0.0025	0.025	mg/L	5	08-May-2014 20:48
trans-1,2-Dichloroethene	U		0.0020	0.025	mg/L	5	08-May-2014 20:48

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-61-0414
 Collection Date: 29-Apr-2014 08:15

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-19
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.0030	0.025	mg/L	5	08-May-2014 20:48
Trichloroethene	U		0.0025	0.025	mg/L	5	08-May-2014 20:48
Vinyl chloride	U		0.0020	0.010	mg/L	5	08-May-2014 20:48
Xylenes, Total	0.42		0.0075	0.075	mg/L	5	08-May-2014 20:48
Surr: 1,2-Dichloroethane-d4	96.5			70-125	%REC	5	08-May-2014 20:48
Surr: 1,2-Dichloroethane-d4	95.9			70-125	%REC	25	08-May-2014 20:22
Surr: 4-Bromofluorobenzene	101			72-125	%REC	5	08-May-2014 20:48
Surr: 4-Bromofluorobenzene	103			72-125	%REC	25	08-May-2014 20:22
Surr: Dibromofluoromethane	103			71-125	%REC	5	08-May-2014 20:48
Surr: Dibromofluoromethane	99.3			71-125	%REC	25	08-May-2014 20:22
Surr: Toluene-d8	94.6			75-125	%REC	5	08-May-2014 20:48
Surr: Toluene-d8	97.3			75-125	%REC	25	08-May-2014 20:22
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 20-May-2014		Analyst: SKS	
Arsenic	0.00127	J	0.00100	0.00500	mg/L	1	23-May-2014 21:08
Barium	0.0305		0.000900	0.00500	mg/L	1	23-May-2014 21:08
Calcium	365		0.670	5.00	mg/L	10	27-May-2014 19:23
Chromium	U		0.00100	0.00500	mg/L	1	23-May-2014 21:08
Iron	0.0734	J	0.0500	0.200	mg/L	1	23-May-2014 21:08
Lead	0.00178	J	0.000700	0.00500	mg/L	1	23-May-2014 21:08
Manganese	0.0226		0.00250	0.00500	mg/L	1	23-May-2014 21:08
Potassium	0.629		0.0500	0.200	mg/L	1	23-May-2014 21:08
Selenium	U		0.00100	0.00500	mg/L	1	23-May-2014 21:08
Sodium	420		0.500	2.00	mg/L	10	27-May-2014 19:23
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	10.9		0.0100	0.0500	mg/L	1	05-May-2014 21:03
Surr: 4-Bromofluorobenzene	19.2	S		70-130	%REC	1	05-May-2014 21:03
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	3,400		5.00	10.0	mg/L	1	06-May-2014 16:40
ANIONS BY E300.0		Method:E300		Analyst: KKB			
Chloride	520		10.0	25.0	mg/L	50	20-May-2014 03:50
Fluoride	0.813		0.0500	0.100	mg/L	1	21-May-2014 10:23
Sulfate	1,070		10.0	25.0	mg/L	50	20-May-2014 03:50
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 05-May-2014		Analyst: RPM	
TPH (Diesel Range)	3.4		0.021	0.052	mg/L	1	08-May-2014 05:36
Surr: 2-Fluorobiphenyl	83.8			60-135	%REC	1	08-May-2014 05:36
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: KKB			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	21-May-2014 21:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-61-0414-D
Collection Date: 29-Apr-2014 08:15

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-20
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 19-May-2014		Analyst: JCJ	
Arsenic	0.00159	J	0.00100	0.00500	mg/L	1	29-May-2014 01:17
Barium	0.0310		0.000900	0.00500	mg/L	1	29-May-2014 01:17
Chromium	U		0.00100	0.00500	mg/L	1	29-May-2014 01:17
Iron	U		0.0780	0.200	mg/L	1	29-May-2014 01:17
Lead	0.00173	J	0.000700	0.00500	mg/L	1	29-May-2014 01:17
Manganese	0.0235		0.00250	0.00500	mg/L	1	29-May-2014 01:17
Selenium	U		0.00100	0.00500	mg/L	1	29-May-2014 01:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-128-0414
 Collection Date: 29-Apr-2014 11:40

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-21
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 05:38
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 05:38
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 05:38
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	07-May-2014 05:38
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 05:38
1,2,4-Trimethylbenzene	0.0095		0.00050	0.0050	mg/L	1	07-May-2014 05:38
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	07-May-2014 05:38
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 05:38
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	07-May-2014 05:38
1,3,5-Trimethylbenzene	0.0045	J	0.00060	0.0050	mg/L	1	07-May-2014 05:38
2-Butanone	U		0.0010	0.010	mg/L	1	07-May-2014 05:38
2-Hexanone	U		0.0010	0.010	mg/L	1	07-May-2014 05:38
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	07-May-2014 05:38
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	07-May-2014 05:38
Acetone	U		0.0020	0.010	mg/L	1	07-May-2014 05:38
Benzene	0.24		0.0060	0.050	mg/L	10	07-May-2014 06:02
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	07-May-2014 05:38
Bromoform	U		0.00050	0.0050	mg/L	1	07-May-2014 05:38
Bromomethane	U		0.00050	0.0050	mg/L	1	07-May-2014 05:38
Carbon disulfide	U		0.00090	0.010	mg/L	1	07-May-2014 05:38
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	07-May-2014 05:38
Chlorobenzene	U		0.00040	0.0050	mg/L	1	07-May-2014 05:38
Chloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 05:38
Chloroform	U		0.00060	0.0050	mg/L	1	07-May-2014 05:38
Chloromethane	0.0028	J	0.00050	0.0050	mg/L	1	07-May-2014 05:38
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 05:38
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 05:38
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 05:38
Ethylbenzene	0.043		0.00050	0.0050	mg/L	1	07-May-2014 05:38
Isopropylbenzene	0.0063		0.00050	0.0050	mg/L	1	07-May-2014 05:38
m,p-Xylene	0.014		0.00060	0.010	mg/L	1	07-May-2014 05:38
Methyl tert-butyl ether	1.3		0.0060	0.050	mg/L	10	07-May-2014 06:02
Methylene chloride	U		0.0010	0.010	mg/L	1	07-May-2014 05:38
Naphthalene	0.012		0.00070	0.0050	mg/L	1	07-May-2014 05:38
n-Butylbenzene	0.0029	J	0.0010	0.0050	mg/L	1	07-May-2014 05:38
n-Propylbenzene	0.010		0.00050	0.0050	mg/L	1	07-May-2014 05:38
o-Xylene	U		0.00050	0.0050	mg/L	1	07-May-2014 05:38
sec-Butylbenzene	0.0020	J	0.00060	0.0050	mg/L	1	07-May-2014 05:38
Styrene	U		0.00050	0.0050	mg/L	1	07-May-2014 05:38
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 05:38
Toluene	0.0019	J	0.00050	0.0050	mg/L	1	07-May-2014 05:38
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	07-May-2014 05:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-128-0414
 Collection Date: 29-Apr-2014 11:40

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-21
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 05:38
Trichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 05:38
Vinyl chloride	U		0.00040	0.0020	mg/L	1	07-May-2014 05:38
Xylenes, Total	0.014	J	0.0015	0.015	mg/L	1	07-May-2014 05:38
Surr: 1,2-Dichloroethane-d4	117			70-125	%REC	10	07-May-2014 06:02
Surr: 1,2-Dichloroethane-d4	112			70-125	%REC	1	07-May-2014 05:38
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	07-May-2014 05:38
Surr: 4-Bromofluorobenzene	99.5			72-125	%REC	10	07-May-2014 06:02
Surr: Dibromofluoromethane	106			71-125	%REC	1	07-May-2014 05:38
Surr: Dibromofluoromethane	110			71-125	%REC	10	07-May-2014 06:02
Surr: Toluene-d8	102			75-125	%REC	1	07-May-2014 05:38
Surr: Toluene-d8	99.8			75-125	%REC	10	07-May-2014 06:02
ICP-MS METALS BY SW6020A			Method:SW6020			Prep:SW3010A / 20-May-2014 Analyst: SKS	
Arsenic	0.0549		0.00100	0.00500	mg/L	1	23-May-2014 21:10
Barium	0.0867		0.000900	0.00500	mg/L	1	23-May-2014 21:10
Calcium	207		0.670	5.00	mg/L	10	27-May-2014 19:26
Chromium	0.00181	J	0.00100	0.00500	mg/L	1	23-May-2014 21:10
Iron	3.53		0.0500	0.200	mg/L	1	23-May-2014 21:10
Lead	0.00132	J	0.000700	0.00500	mg/L	1	23-May-2014 21:10
Manganese	2.33		0.0250	0.0500	mg/L	10	27-May-2014 19:26
Potassium	0.515		0.0500	0.200	mg/L	1	23-May-2014 21:10
Selenium	U		0.00100	0.00500	mg/L	1	23-May-2014 21:10
Sodium	106		0.500	2.00	mg/L	10	27-May-2014 19:26
GASOLINE RANGE ORGANICS BY SW8015C			Method:SW8015			Analyst: DNR	
Gasoline Range Organics	3.19		0.0100	0.0500	mg/L	1	06-May-2014 15:45
Surr: 4-Bromofluorobenzene	114			70-130	%REC	1	06-May-2014 15:45
TOTAL DISSOLVED SOLIDS BY SM2540C			Method:M2540C			Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	1,380		5.00	10.0	mg/L	1	06-May-2014 16:40
ANIONS BY E300.0			Method:E300			Analyst: KKB	
Chloride	283		10.0	25.0	mg/L	50	20-May-2014 04:16
Fluoride	0.991		0.0500	0.100	mg/L	1	21-May-2014 10:47
Sulfate	172		10.0	25.0	mg/L	50	20-May-2014 04:16
TPH DRO/ORO BY SW8015C			Method:SW8015M			Prep:SW3511 / 05-May-2014 Analyst: RPM	
TPH (Diesel Range)	2.1		0.021	0.052	mg/L	1	08-May-2014 06:02
Surr: 2-Fluorobiphenyl	86.2			60-135	%REC	1	08-May-2014 06:02
NITRATE/NITRITE BY E300.0			Method:E300			Analyst: KKB	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	21-May-2014 21:29

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-128-0414-D
Collection Date: 29-Apr-2014 11:40

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-22
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 19-May-2014		Analyst: JCJ	
Arsenic	0.0563		0.00100	0.00500	mg/L	1	29-May-2014 01:22
Barium	0.0808		0.000900	0.00500	mg/L	1	29-May-2014 01:22
Chromium	U		0.00100	0.00500	mg/L	1	29-May-2014 01:22
Iron	2.92		0.0780	0.200	mg/L	1	29-May-2014 01:22
Lead	U		0.000700	0.00500	mg/L	1	29-May-2014 01:22
Manganese	2.29		0.0250	0.0500	mg/L	10	31-May-2014 21:22
Selenium	U		0.00100	0.00500	mg/L	1	29-May-2014 01:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: TEL-4-0414
 Collection Date: 29-Apr-2014 10:30

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-23
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 06:27
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 06:27
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 06:27
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	07-May-2014 06:27
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 06:27
1,2,4-Trimethylbenzene	0.099		0.00050	0.0050	mg/L	1	07-May-2014 06:27
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	07-May-2014 06:27
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 06:27
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	07-May-2014 06:27
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 06:27
2-Butanone	U		0.0010	0.010	mg/L	1	07-May-2014 06:27
2-Hexanone	U		0.0010	0.010	mg/L	1	07-May-2014 06:27
4-Isopropyltoluene	0.0029	J	0.00050	0.0050	mg/L	1	07-May-2014 06:27
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	07-May-2014 06:27
Acetone	0.0080	J	0.0020	0.010	mg/L	1	07-May-2014 06:27
Benzene	0.37		0.0060	0.050	mg/L	10	07-May-2014 06:51
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	07-May-2014 06:27
Bromoform	U		0.00050	0.0050	mg/L	1	07-May-2014 06:27
Bromomethane	U		0.00050	0.0050	mg/L	1	07-May-2014 06:27
Carbon disulfide	0.0030	J	0.00090	0.010	mg/L	1	07-May-2014 06:27
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	07-May-2014 06:27
Chlorobenzene	U		0.00040	0.0050	mg/L	1	07-May-2014 06:27
Chloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 06:27
Chloroform	U		0.00060	0.0050	mg/L	1	07-May-2014 06:27
Chloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 06:27
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 06:27
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 06:27
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 06:27
Ethylbenzene	0.0035	J	0.00050	0.0050	mg/L	1	07-May-2014 06:27
Isopropylbenzene	0.044		0.00050	0.0050	mg/L	1	07-May-2014 06:27
m,p-Xylene	0.060		0.00060	0.010	mg/L	1	07-May-2014 06:27
Methyl tert-butyl ether	0.12		0.00060	0.0050	mg/L	1	07-May-2014 06:27
Methylene chloride	U		0.0010	0.010	mg/L	1	07-May-2014 06:27
Naphthalene	0.0035	J	0.00070	0.0050	mg/L	1	07-May-2014 06:27
n-Butylbenzene	0.0073		0.0010	0.0050	mg/L	1	07-May-2014 06:27
n-Propylbenzene	0.072		0.00050	0.0050	mg/L	1	07-May-2014 06:27
o-Xylene	0.0013	J	0.00050	0.0050	mg/L	1	07-May-2014 06:27
sec-Butylbenzene	0.015		0.00060	0.0050	mg/L	1	07-May-2014 06:27
Styrene	U		0.00050	0.0050	mg/L	1	07-May-2014 06:27
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 06:27
Toluene	0.0046	J	0.00050	0.0050	mg/L	1	07-May-2014 06:27
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	07-May-2014 06:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: TEL-4-0414
 Collection Date: 29-Apr-2014 10:30

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-23
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 06:27
Trichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 06:27
Vinyl chloride	U		0.00040	0.0020	mg/L	1	07-May-2014 06:27
Xylenes, Total	0.061		0.0015	0.015	mg/L	1	07-May-2014 06:27
Surr: 1,2-Dichloroethane-d4	114			70-125	%REC	10	07-May-2014 06:51
Surr: 1,2-Dichloroethane-d4	109			70-125	%REC	1	07-May-2014 06:27
Surr: 4-Bromofluorobenzene	104			72-125	%REC	1	07-May-2014 06:27
Surr: 4-Bromofluorobenzene	100			72-125	%REC	10	07-May-2014 06:51
Surr: Dibromofluoromethane	108			71-125	%REC	10	07-May-2014 06:51
Surr: Dibromofluoromethane	106			71-125	%REC	1	07-May-2014 06:27
Surr: Toluene-d8	100			75-125	%REC	10	07-May-2014 06:51
Surr: Toluene-d8	103			75-125	%REC	1	07-May-2014 06:27
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 20-May-2014		Analyst: SKS	
Arsenic	0.0128		0.00100	0.00500	mg/L	1	23-May-2014 21:13
Barium	0.0376		0.000900	0.00500	mg/L	1	23-May-2014 21:13
Calcium	332		0.670	5.00	mg/L	10	27-May-2014 19:28
Chromium	0.223		0.00100	0.00500	mg/L	1	23-May-2014 21:13
Iron	0.0921	J	0.0500	0.200	mg/L	1	23-May-2014 21:13
Lead	0.00195	J	0.000700	0.00500	mg/L	1	23-May-2014 21:13
Manganese	0.408		0.00250	0.00500	mg/L	1	23-May-2014 21:13
Potassium	0.575		0.0500	0.200	mg/L	1	23-May-2014 21:13
Selenium	0.00103	J	0.00100	0.00500	mg/L	1	23-May-2014 21:13
Sodium	565		0.500	2.00	mg/L	10	27-May-2014 19:28
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	3.11		0.0100	0.0500	mg/L	1	06-May-2014 16:02
Surr: 4-Bromofluorobenzene	114			70-130	%REC	1	06-May-2014 16:02
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	4,480		5.00	10.0	mg/L	1	06-May-2014 16:40
ANIONS BY E300.0		Method:E300		Analyst: KKB			
Chloride	588		10.0	25.0	mg/L	50	20-May-2014 04:42
Fluoride	0.429		0.0500	0.100	mg/L	1	21-May-2014 11:12
Sulfate	1,480		10.0	25.0	mg/L	50	20-May-2014 04:42
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 05-May-2014		Analyst: RPM	
TPH (Diesel Range)	8.6		0.042	0.11	mg/L	2	12-May-2014 16:35
Surr: 2-Fluorobiphenyl	139	S		60-135	%REC	2	12-May-2014 16:35
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: KKB			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	21-May-2014 21:43

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: TEL-4-0414-D
Collection Date: 29-Apr-2014 10:30

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-24
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 19-May-2014		Analyst: ALR	
Arsenic	0.0125		0.00100	0.00500	mg/L	1	31-May-2014 21:26
Barium	0.0349		0.000900	0.00500	mg/L	1	31-May-2014 21:26
Chromium	0.00884		0.00100	0.00500	mg/L	1	31-May-2014 21:26
Iron	U		0.0780	0.200	mg/L	1	31-May-2014 21:26
Lead	0.00196	J	0.000700	0.00500	mg/L	1	31-May-2014 21:26
Manganese	0.444		0.00250	0.00500	mg/L	1	31-May-2014 21:26
Selenium	U		0.00100	0.00500	mg/L	1	31-May-2014 21:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-49-0414
 Collection Date: 29-Apr-2014 11:05

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-25
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 07:15
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 07:15
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 07:15
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	07-May-2014 07:15
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 07:15
1,2,4-Trimethylbenzene	0.022		0.00050	0.0050	mg/L	1	07-May-2014 07:15
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	07-May-2014 07:15
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 07:15
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	07-May-2014 07:15
1,3,5-Trimethylbenzene	0.0018	J	0.00060	0.0050	mg/L	1	07-May-2014 07:15
2-Butanone	U		0.0010	0.010	mg/L	1	07-May-2014 07:15
2-Hexanone	U		0.0010	0.010	mg/L	1	07-May-2014 07:15
4-Isopropyltoluene	0.00090	J	0.00050	0.0050	mg/L	1	07-May-2014 07:15
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	07-May-2014 07:15
Acetone	0.0078	J	0.0020	0.010	mg/L	1	07-May-2014 07:15
Benzene	0.22		0.0030	0.025	mg/L	5	07-May-2014 07:39
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	07-May-2014 07:15
Bromoform	U		0.00050	0.0050	mg/L	1	07-May-2014 07:15
Bromomethane	U		0.00050	0.0050	mg/L	1	07-May-2014 07:15
Carbon disulfide	0.0022	J	0.00090	0.010	mg/L	1	07-May-2014 07:15
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	07-May-2014 07:15
Chlorobenzene	U		0.00040	0.0050	mg/L	1	07-May-2014 07:15
Chloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 07:15
Chloroform	U		0.00060	0.0050	mg/L	1	07-May-2014 07:15
Chloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 07:15
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 07:15
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 07:15
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 07:15
Ethylbenzene	0.0043	J	0.00050	0.0050	mg/L	1	07-May-2014 07:15
Isopropylbenzene	0.018		0.00050	0.0050	mg/L	1	07-May-2014 07:15
m,p-Xylene	0.034		0.00060	0.010	mg/L	1	07-May-2014 07:15
Methyl tert-butyl ether	0.049		0.00060	0.0050	mg/L	1	07-May-2014 07:15
Methylene chloride	U		0.0010	0.010	mg/L	1	07-May-2014 07:15
Naphthalene	0.0054		0.00070	0.0050	mg/L	1	07-May-2014 07:15
n-Butylbenzene	0.0032	J	0.0010	0.0050	mg/L	1	07-May-2014 07:15
n-Propylbenzene	0.015		0.00050	0.0050	mg/L	1	07-May-2014 07:15
o-Xylene	U		0.00050	0.0050	mg/L	1	07-May-2014 07:15
sec-Butylbenzene	0.0034	J	0.00060	0.0050	mg/L	1	07-May-2014 07:15
Styrene	U		0.00050	0.0050	mg/L	1	07-May-2014 07:15
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 07:15
Toluene	0.0040	J	0.00050	0.0050	mg/L	1	07-May-2014 07:15
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	07-May-2014 07:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-49-0414
 Collection Date: 29-Apr-2014 11:05

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-25
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 07:15
Trichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 07:15
Vinyl chloride	U		0.00040	0.0020	mg/L	1	07-May-2014 07:15
Xylenes, Total	0.034		0.0015	0.015	mg/L	1	07-May-2014 07:15
Surr: 1,2-Dichloroethane-d4	115			70-125	%REC	5	07-May-2014 07:39
Surr: 1,2-Dichloroethane-d4	112			70-125	%REC	1	07-May-2014 07:15
Surr: 4-Bromofluorobenzene	102			72-125	%REC	5	07-May-2014 07:39
Surr: 4-Bromofluorobenzene	104			72-125	%REC	1	07-May-2014 07:15
Surr: Dibromofluoromethane	108			71-125	%REC	5	07-May-2014 07:39
Surr: Dibromofluoromethane	110			71-125	%REC	1	07-May-2014 07:15
Surr: Toluene-d8	102			75-125	%REC	5	07-May-2014 07:39
Surr: Toluene-d8	102			75-125	%REC	1	07-May-2014 07:15
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 20-May-2014		Analyst: SKS	
Arsenic	0.00457	J	0.00100	0.00500	mg/L	1	23-May-2014 21:16
Barium	0.0409		0.000900	0.00500	mg/L	1	23-May-2014 21:16
Calcium	189		0.670	5.00	mg/L	10	27-May-2014 19:35
Chromium	U		0.00100	0.00500	mg/L	1	23-May-2014 21:16
Iron	U		0.0500	0.200	mg/L	1	23-May-2014 21:16
Lead	U		0.000700	0.00500	mg/L	1	23-May-2014 21:16
Manganese	0.302		0.00250	0.00500	mg/L	1	23-May-2014 21:16
Nickel	0.00856		0.00100	0.00500	mg/L	1	23-May-2014 21:16
Potassium	1.60		0.0500	0.200	mg/L	1	23-May-2014 21:16
Selenium	0.00113	J	0.00100	0.00500	mg/L	1	23-May-2014 21:16
Sodium	338		0.500	2.00	mg/L	10	27-May-2014 19:35
Vanadium	0.00406	J	0.000900	0.00500	mg/L	1	23-May-2014 21:16
CYANIDE BY SW9012B		Method:SW9012		Prep:SW9010C / 05-May-2014		Analyst: KKB	
Cyanide	0.0100	J	0.00500	0.0200	mg/L	1	06-May-2014 18:08
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	1.99		0.0100	0.0500	mg/L	1	06-May-2014 16:33
Surr: 4-Bromofluorobenzene	114			70-130	%REC	1	06-May-2014 16:33
MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 27-May-2014		Analyst: JBA	
Mercury	U		0.0000400	0.000200	mg/L	1	28-May-2014 11:58
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	2,280		5.00	10.0	mg/L	1	06-May-2014 16:40
ANIONS BY E300.0		Method:E300		Analyst: KKB			
Chloride	366		10.0	25.0	mg/L	50	20-May-2014 05:08
Fluoride	0.896		0.0500	0.100	mg/L	1	21-May-2014 11:36
Sulfate	472		10.0	25.0	mg/L	50	20-May-2014 05:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-49-0414
Collection Date: 29-Apr-2014 11:05

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-25
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 05-May-2014		Analyst: RPM	
TPH (Diesel Range)	5.6		0.021	0.052	mg/L	1	08-May-2014 06:55
<i>Surr: 2-Fluorobiphenyl</i>	95.6			60-135	%REC	1	08-May-2014 06:55
NITRATE/NITRITE BY E300.0		Method:E300				Analyst: KKB	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	21-May-2014 21:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-49-0414-D
 Collection Date: 29-Apr-2014 11:05

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-26
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 19-May-2014		Analyst: ALR	
Arsenic	0.00460	J	0.00100	0.00500	mg/L	1	31-May-2014 21:31
Barium	0.0376		0.000900	0.00500	mg/L	1	31-May-2014 21:31
Chromium	U		0.00100	0.00500	mg/L	1	31-May-2014 21:31
Iron	U		0.0780	0.200	mg/L	1	31-May-2014 21:31
Lead	U		0.000700	0.00500	mg/L	1	31-May-2014 21:31
Manganese	0.333		0.00250	0.00500	mg/L	1	31-May-2014 21:31
Nickel	0.00825		0.00100	0.00500	mg/L	1	31-May-2014 21:31
Selenium	U		0.00100	0.00500	mg/L	1	31-May-2014 21:31
Vanadium	U		0.000900	0.00500	mg/L	1	31-May-2014 21:31
DISSOLVED MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 27-May-2014		Analyst: JBA	
Mercury	U		0.0000420	0.000200	mg/L	1	27-May-2014 17:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: TEL-1-0414
 Collection Date: 29-Apr-2014 09:00

ANALYTICAL REPORT

WorkOrder: HS14050073
 Lab ID: HS14050073-27
 Matrix: Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method: SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 04:42
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 04:42
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 04:42
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	06-May-2014 04:42
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 04:42
1,2,4-Trimethylbenzene	0.0012	J	0.00050	0.0050	mg/L	1	06-May-2014 04:42
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	06-May-2014 04:42
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 04:42
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	06-May-2014 04:42
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 04:42
2-Butanone	U		0.0010	0.010	mg/L	1	06-May-2014 04:42
2-Hexanone	U		0.0010	0.010	mg/L	1	06-May-2014 04:42
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	06-May-2014 04:42
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	06-May-2014 04:42
Acetone	0.0073	J	0.0020	0.010	mg/L	1	06-May-2014 04:42
Benzene	U		0.00060	0.0050	mg/L	1	06-May-2014 04:42
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	06-May-2014 04:42
Bromoform	U		0.00050	0.0050	mg/L	1	06-May-2014 04:42
Bromomethane	U		0.00050	0.0050	mg/L	1	06-May-2014 04:42
Carbon disulfide	U		0.00090	0.010	mg/L	1	06-May-2014 04:42
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	06-May-2014 04:42
Chlorobenzene	U		0.00040	0.0050	mg/L	1	06-May-2014 04:42
Chloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 04:42
Chloroform	U		0.00060	0.0050	mg/L	1	06-May-2014 04:42
Chloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 04:42
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 04:42
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 04:42
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 04:42
Ethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 04:42
Isopropylbenzene	0.0020	J	0.00050	0.0050	mg/L	1	06-May-2014 04:42
m,p-Xylene	U		0.00060	0.010	mg/L	1	06-May-2014 04:42
Methyl tert-butyl ether	0.0039	J	0.00060	0.0050	mg/L	1	06-May-2014 04:42
Methylene chloride	U		0.0010	0.010	mg/L	1	06-May-2014 04:42
Naphthalene	0.0029	J	0.00070	0.0050	mg/L	1	06-May-2014 04:42
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	06-May-2014 04:42
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 04:42
o-Xylene	0.0024	J	0.00050	0.0050	mg/L	1	06-May-2014 04:42
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 04:42
Styrene	U		0.00050	0.0050	mg/L	1	06-May-2014 04:42
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 04:42
Toluene	0.0010	J	0.00050	0.0050	mg/L	1	06-May-2014 04:42
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	06-May-2014 04:42

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: TEL-1-0414
 Collection Date: 29-Apr-2014 09:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-27
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 04:42
Trichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 04:42
Vinyl chloride	U		0.00040	0.0020	mg/L	1	06-May-2014 04:42
Xylenes, Total	0.0024	J	0.0015	0.015	mg/L	1	06-May-2014 04:42
Surr: 1,2-Dichloroethane-d4	106			70-125	%REC	1	06-May-2014 04:42
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	06-May-2014 04:42
Surr: Dibromofluoromethane	101			71-125	%REC	1	06-May-2014 04:42
Surr: Toluene-d8	102			75-125	%REC	1	06-May-2014 04:42
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 21-May-2014		Analyst: ALR	
Arsenic	0.00402	J	0.00100	0.00500	mg/L	1	30-May-2014 01:44
Barium	0.0117		0.000900	0.00500	mg/L	1	30-May-2014 01:44
Calcium	383		0.670	5.00	mg/L	10	02-Jun-2014 22:59
Chromium	U		0.00100	0.00500	mg/L	1	30-May-2014 01:44
Iron	U		0.0500	0.200	mg/L	1	30-May-2014 01:44
Lead	0.00109	J	0.000700	0.00500	mg/L	1	30-May-2014 01:44
Manganese	0.0827		0.00250	0.00500	mg/L	1	30-May-2014 01:44
Potassium	1.35		0.0500	0.200	mg/L	1	30-May-2014 01:44
Selenium	0.00286	J	0.00100	0.00500	mg/L	1	30-May-2014 01:44
Sodium	460		0.500	2.00	mg/L	10	02-Jun-2014 22:59
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	0.384		0.0100	0.0500	mg/L	1	06-May-2014 16:49
Surr: 4-Bromofluorobenzene	115			70-130	%REC	1	06-May-2014 16:49
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	3,080		5.00	10.0	mg/L	1	06-May-2014 16:40
ANIONS BY E300.0		Method:E300		Analyst: KKB			
Chloride	228		10.0	25.0	mg/L	50	20-May-2014 05:34
Fluoride	2.00		0.0500	0.100	mg/L	1	21-May-2014 12:00
Sulfate	1,380		10.0	25.0	mg/L	50	20-May-2014 05:34
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 05-May-2014		Analyst: RPM	
TPH (Diesel Range)	8.7		0.10	0.26	mg/L	5	12-May-2014 17:01
Surr: 2-Fluorobiphenyl	215	S		60-135	%REC	5	12-May-2014 17:01
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: KKB			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	21-May-2014 22:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: TEL-1-0414-D
 Collection Date: 29-Apr-2014 09:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-28
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 19-May-2014		Analyst: ALR	
Arsenic	0.00400	J	0.00100	0.00500	mg/L	1	31-May-2014 21:35
Barium	0.0127		0.000900	0.00500	mg/L	1	31-May-2014 21:35
Chromium	U		0.00100	0.00500	mg/L	1	31-May-2014 21:35
Iron	U		0.0780	0.200	mg/L	1	31-May-2014 21:35
Lead	U		0.000700	0.00500	mg/L	1	31-May-2014 21:35
Manganese	0.0837		0.00250	0.00500	mg/L	1	31-May-2014 21:35
Selenium	U		0.00100	0.00500	mg/L	1	31-May-2014 21:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: Dup-14-0414
 Collection Date: 29-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-29
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 05:07
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 05:07
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 05:07
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	06-May-2014 05:07
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 05:07
1,2,4-Trimethylbenzene	0.0012	J	0.00050	0.0050	mg/L	1	06-May-2014 05:07
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	06-May-2014 05:07
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 05:07
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	06-May-2014 05:07
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 05:07
2-Butanone	U		0.0010	0.010	mg/L	1	06-May-2014 05:07
2-Hexanone	U		0.0010	0.010	mg/L	1	06-May-2014 05:07
4-Isopropyltoluene	0.0021	J	0.00050	0.0050	mg/L	1	06-May-2014 05:07
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	06-May-2014 05:07
Acetone	0.0084	J	0.0020	0.010	mg/L	1	06-May-2014 05:07
Benzene	U		0.00060	0.0050	mg/L	1	06-May-2014 05:07
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	06-May-2014 05:07
Bromoform	U		0.00050	0.0050	mg/L	1	06-May-2014 05:07
Bromomethane	U		0.00050	0.0050	mg/L	1	06-May-2014 05:07
Carbon disulfide	U		0.00090	0.010	mg/L	1	06-May-2014 05:07
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	06-May-2014 05:07
Chlorobenzene	U		0.00040	0.0050	mg/L	1	06-May-2014 05:07
Chloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 05:07
Chloroform	U		0.00060	0.0050	mg/L	1	06-May-2014 05:07
Chloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 05:07
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 05:07
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 05:07
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 05:07
Ethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 05:07
Isopropylbenzene	0.0019	J	0.00050	0.0050	mg/L	1	06-May-2014 05:07
m,p-Xylene	U		0.00060	0.010	mg/L	1	06-May-2014 05:07
Methyl tert-butyl ether	0.0040	J	0.00060	0.0050	mg/L	1	06-May-2014 05:07
Methylene chloride	U		0.0010	0.010	mg/L	1	06-May-2014 05:07
Naphthalene	0.0029	J	0.00070	0.0050	mg/L	1	06-May-2014 05:07
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	06-May-2014 05:07
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 05:07
o-Xylene	0.0023	J	0.00050	0.0050	mg/L	1	06-May-2014 05:07
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 05:07
Styrene	U		0.00050	0.0050	mg/L	1	06-May-2014 05:07
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 05:07
Toluene	0.0011	J	0.00050	0.0050	mg/L	1	06-May-2014 05:07
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	06-May-2014 05:07

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: Dup-14-0414
 Collection Date: 29-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-29
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 05:07
Trichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 05:07
Vinyl chloride	U		0.00040	0.0020	mg/L	1	06-May-2014 05:07
Xylenes, Total	0.0023	J	0.0015	0.015	mg/L	1	06-May-2014 05:07
Surr: 1,2-Dichloroethane-d4	107			70-125	%REC	1	06-May-2014 05:07
Surr: 4-Bromofluorobenzene	101			72-125	%REC	1	06-May-2014 05:07
Surr: Dibromofluoromethane	106			71-125	%REC	1	06-May-2014 05:07
Surr: Toluene-d8	101			75-125	%REC	1	06-May-2014 05:07
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 21-May-2014		Analyst: ALR	
Arsenic	0.00372	J	0.00100	0.00500	mg/L	1	30-May-2014 01:48
Barium	0.0108		0.000900	0.00500	mg/L	1	30-May-2014 01:48
Calcium	359		0.670	5.00	mg/L	10	02-Jun-2014 23:04
Chromium	U		0.00100	0.00500	mg/L	1	30-May-2014 01:48
Iron	U		0.0500	0.200	mg/L	1	30-May-2014 01:48
Lead	U		0.000700	0.00500	mg/L	1	30-May-2014 01:48
Manganese	0.0751		0.00250	0.00500	mg/L	1	30-May-2014 01:48
Potassium	1.30		0.0500	0.200	mg/L	1	30-May-2014 01:48
Selenium	0.00460	J	0.00100	0.00500	mg/L	1	30-May-2014 01:48
Sodium	427		0.500	2.00	mg/L	10	02-Jun-2014 23:04
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	0.350		0.0100	0.0500	mg/L	1	06-May-2014 17:05
Surr: 4-Bromofluorobenzene	112			70-130	%REC	1	06-May-2014 17:05
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	3,140		5.00	10.0	mg/L	1	06-May-2014 16:40
ANIONS BY E300.0		Method:E300		Analyst: KKB			
Chloride	224		10.0	25.0	mg/L	50	20-May-2014 05:59
Fluoride	1.90		0.0500	0.100	mg/L	1	21-May-2014 12:24
Sulfate	1,370		10.0	25.0	mg/L	50	20-May-2014 05:59
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 06-May-2014		Analyst: RPM	
TPH (Diesel Range)	7.7		0.10	0.26	mg/L	5	12-May-2014 17:28
Surr: 2-Fluorobiphenyl	208	S		60-135	%REC	5	12-May-2014 17:28
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: KKB			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	21-May-2014 22:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: Dup-14-0414-D
Collection Date: 29-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-30
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 19-May-2014		Analyst: ALR	
Arsenic	0.00428	J	0.00100	0.00500	mg/L	1	31-May-2014 21:40
Barium	0.0131		0.000900	0.00500	mg/L	1	31-May-2014 21:40
Chromium	U		0.00100	0.00500	mg/L	1	31-May-2014 21:40
Iron	U		0.0780	0.200	mg/L	1	31-May-2014 21:40
Lead	U		0.000700	0.00500	mg/L	1	31-May-2014 21:40
Manganese	0.0909		0.00250	0.00500	mg/L	1	31-May-2014 21:40
Selenium	0.00110	J	0.00100	0.00500	mg/L	1	31-May-2014 21:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: TEL-2-0414
 Collection Date: 29-Apr-2014 09:30

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-31
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 04:03
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 04:03
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 04:03
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	07-May-2014 04:03
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 04:03
1,2,4-Trimethylbenzene	0.20		0.00050	0.0050	mg/L	1	07-May-2014 04:03
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	07-May-2014 04:03
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 04:03
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	07-May-2014 04:03
1,3,5-Trimethylbenzene	0.032		0.00060	0.0050	mg/L	1	07-May-2014 04:03
2-Butanone	U		0.0010	0.010	mg/L	1	07-May-2014 04:03
2-Hexanone	U		0.0010	0.010	mg/L	1	07-May-2014 04:03
4-Isopropyltoluene	0.0055		0.00050	0.0050	mg/L	1	07-May-2014 04:03
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	07-May-2014 04:03
Acetone	0.0071	J	0.0020	0.010	mg/L	1	07-May-2014 04:03
Benzene	1.2		0.0060	0.050	mg/L	10	07-May-2014 05:14
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	07-May-2014 04:03
Bromoform	U		0.00050	0.0050	mg/L	1	07-May-2014 04:03
Bromomethane	U		0.00050	0.0050	mg/L	1	07-May-2014 04:03
Carbon disulfide	0.0039	J	0.00090	0.010	mg/L	1	07-May-2014 04:03
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	07-May-2014 04:03
Chlorobenzene	U		0.00040	0.0050	mg/L	1	07-May-2014 04:03
Chloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 04:03
Chloroform	U		0.00060	0.0050	mg/L	1	07-May-2014 04:03
Chloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 04:03
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 04:03
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 04:03
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 04:03
Ethylbenzene	0.015		0.00050	0.0050	mg/L	1	07-May-2014 04:03
Isopropylbenzene	0.050		0.00050	0.0050	mg/L	1	07-May-2014 04:03
m,p-Xylene	0.24		0.00060	0.010	mg/L	1	07-May-2014 04:03
Methyl tert-butyl ether	0.011		0.00060	0.0050	mg/L	1	07-May-2014 04:03
Methylene chloride	U		0.0010	0.010	mg/L	1	07-May-2014 04:03
Naphthalene	0.023		0.00070	0.0050	mg/L	1	07-May-2014 04:03
n-Butylbenzene	0.0089		0.0010	0.0050	mg/L	1	07-May-2014 04:03
n-Propylbenzene	0.064		0.00050	0.0050	mg/L	1	07-May-2014 04:03
o-Xylene	0.018		0.00050	0.0050	mg/L	1	07-May-2014 04:03
sec-Butylbenzene	0.0075		0.00060	0.0050	mg/L	1	07-May-2014 04:03
Styrene	U		0.00050	0.0050	mg/L	1	07-May-2014 04:03
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 04:03
Toluene	0.043		0.00050	0.0050	mg/L	1	07-May-2014 04:03
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	07-May-2014 04:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: TEL-2-0414
 Collection Date: 29-Apr-2014 09:30

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-31
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 04:03
Trichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 04:03
Vinyl chloride	U		0.00040	0.0020	mg/L	1	07-May-2014 04:03
Xylenes, Total	0.26		0.0015	0.015	mg/L	1	07-May-2014 04:03
Surr: 1,2-Dichloroethane-d4	111			70-125	%REC	10	07-May-2014 05:14
Surr: 1,2-Dichloroethane-d4	114			70-125	%REC	1	07-May-2014 04:03
Surr: 4-Bromofluorobenzene	103			72-125	%REC	1	07-May-2014 04:03
Surr: 4-Bromofluorobenzene	103			72-125	%REC	10	07-May-2014 05:14
Surr: Dibromofluoromethane	105			71-125	%REC	1	07-May-2014 04:03
Surr: Dibromofluoromethane	108			71-125	%REC	10	07-May-2014 05:14
Surr: Toluene-d8	102			75-125	%REC	10	07-May-2014 05:14
Surr: Toluene-d8	100			75-125	%REC	1	07-May-2014 04:03
ICP-MS METALS BY SW6020A			Method:SW6020			Prep:SW3010A / 21-May-2014 Analyst: ALR	
Arsenic	0.0115		0.00100	0.00500	mg/L	1	30-May-2014 01:53
Barium	0.0729		0.000900	0.00500	mg/L	1	30-May-2014 01:53
Calcium	158		0.0670	0.500	mg/L	1	30-May-2014 01:53
Chromium	0.00127	J	0.00100	0.00500	mg/L	1	30-May-2014 01:53
Iron	U		0.0500	0.200	mg/L	1	30-May-2014 01:53
Lead	0.00248	J	0.000700	0.00500	mg/L	1	30-May-2014 01:53
Manganese	0.00988		0.00250	0.00500	mg/L	1	30-May-2014 01:53
Potassium	1.42		0.0500	0.200	mg/L	1	30-May-2014 01:53
Selenium	0.00593		0.00100	0.00500	mg/L	1	30-May-2014 01:53
Sodium	378		0.500	2.00	mg/L	10	02-Jun-2014 23:09
GASOLINE RANGE ORGANICS BY SW8015C			Method:SW8015			Analyst: DNR	
Gasoline Range Organics	6.08		0.0100	0.0500	mg/L	1	06-May-2014 17:21
Surr: 4-Bromofluorobenzene	124			70-130	%REC	1	06-May-2014 17:21
TOTAL DISSOLVED SOLIDS BY SM2540C			Method:M2540C			Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	2,340		5.00	10.0	mg/L	1	06-May-2014 16:40
ANIONS BY E300.0			Method:E300			Analyst: KKB	
Chloride	312		10.0	25.0	mg/L	50	19-May-2014 18:58
Fluoride	1.22		0.0500	0.100	mg/L	1	20-May-2014 01:48
Sulfate	554		10.0	25.0	mg/L	50	19-May-2014 18:58
TPH DRO/ORO BY SW8015C			Method:SW8015M			Prep:SW3511 / 06-May-2014 Analyst: RPM	
TPH (Diesel Range)	17		0.21	0.52	mg/L	10	12-May-2014 17:54
Surr: 2-Fluorobiphenyl	369	S		60-135	%REC	10	12-May-2014 17:54
NITRATE/NITRITE BY E300.0			Method:E300			Analyst: KKB	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	21-May-2014 22:42

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: TEL-2-0414-D
Collection Date: 29-Apr-2014 09:30

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-32
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 19-May-2014		Analyst: ALR	
Arsenic	0.0119		0.00100	0.00500	mg/L	1	31-May-2014 00:34
Barium	0.0745		0.000900	0.00500	mg/L	1	31-May-2014 00:34
Chromium	U		0.00100	0.00500	mg/L	1	31-May-2014 00:34
Iron	U		0.0780	0.200	mg/L	1	31-May-2014 00:34
Lead	0.00246	J	0.000700	0.00500	mg/L	1	31-May-2014 00:34
Manganese	0.0107		0.00250	0.00500	mg/L	1	31-May-2014 00:34
Selenium	U		0.00100	0.00500	mg/L	1	31-May-2014 00:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: TEL-3-0414
 Collection Date: 29-Apr-2014 10:05

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-33
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 05:31
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 05:31
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 05:31
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	06-May-2014 05:31
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 05:31
1,2,4-Trimethylbenzene	0.027		0.00050	0.0050	mg/L	1	06-May-2014 05:31
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	06-May-2014 05:31
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 05:31
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	06-May-2014 05:31
1,3,5-Trimethylbenzene	0.0029	J	0.00060	0.0050	mg/L	1	06-May-2014 05:31
2-Butanone	U		0.0010	0.010	mg/L	1	06-May-2014 05:31
2-Hexanone	U		0.0010	0.010	mg/L	1	06-May-2014 05:31
4-Isopropyltoluene	0.0015	J	0.00050	0.0050	mg/L	1	06-May-2014 05:31
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	06-May-2014 05:31
Acetone	0.0049	J	0.0020	0.010	mg/L	1	06-May-2014 05:31
Benzene	0.0092		0.00060	0.0050	mg/L	1	06-May-2014 05:31
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	06-May-2014 05:31
Bromoform	U		0.00050	0.0050	mg/L	1	06-May-2014 05:31
Bromomethane	U		0.00050	0.0050	mg/L	1	06-May-2014 05:31
Carbon disulfide	U		0.00090	0.010	mg/L	1	06-May-2014 05:31
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	06-May-2014 05:31
Chlorobenzene	U		0.00040	0.0050	mg/L	1	06-May-2014 05:31
Chloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 05:31
Chloroform	U		0.00060	0.0050	mg/L	1	06-May-2014 05:31
Chloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 05:31
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 05:31
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 05:31
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 05:31
Ethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 05:31
Isopropylbenzene	0.060		0.00050	0.0050	mg/L	1	06-May-2014 05:31
m,p-Xylene	0.018		0.00060	0.010	mg/L	1	06-May-2014 05:31
Methyl tert-butyl ether	0.0030	J	0.00060	0.0050	mg/L	1	06-May-2014 05:31
Methylene chloride	U		0.0010	0.010	mg/L	1	06-May-2014 05:31
Naphthalene	0.0034	J	0.00070	0.0050	mg/L	1	06-May-2014 05:31
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	06-May-2014 05:31
n-Propylbenzene	0.013		0.00050	0.0050	mg/L	1	06-May-2014 05:31
o-Xylene	0.0032	J	0.00050	0.0050	mg/L	1	06-May-2014 05:31
sec-Butylbenzene	0.012		0.00060	0.0050	mg/L	1	06-May-2014 05:31
Styrene	U		0.00050	0.0050	mg/L	1	06-May-2014 05:31
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 05:31
Toluene	U		0.00050	0.0050	mg/L	1	06-May-2014 05:31
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	06-May-2014 05:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: TEL-3-0414
 Collection Date: 29-Apr-2014 10:05

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-33
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 05:31
Trichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 05:31
Vinyl chloride	U		0.00040	0.0020	mg/L	1	06-May-2014 05:31
Xylenes, Total	0.021		0.0015	0.015	mg/L	1	06-May-2014 05:31
Surr: 1,2-Dichloroethane-d4	106			70-125	%REC	1	06-May-2014 05:31
Surr: 4-Bromofluorobenzene	102			72-125	%REC	1	06-May-2014 05:31
Surr: Dibromofluoromethane	102			71-125	%REC	1	06-May-2014 05:31
Surr: Toluene-d8	102			75-125	%REC	1	06-May-2014 05:31
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 21-May-2014		Analyst: JCJ	
Arsenic	0.00330	J	0.00100	0.00500	mg/L	1	03-Jun-2014 00:51
Barium	0.0147		0.000900	0.00500	mg/L	1	03-Jun-2014 00:51
Calcium	573		0.670	5.00	mg/L	10	02-Jun-2014 23:14
Chromium	0.00723		0.00100	0.00500	mg/L	1	03-Jun-2014 00:51
Iron	0.0610	J	0.0500	0.200	mg/L	1	03-Jun-2014 00:51
Lead	U		0.000700	0.00500	mg/L	1	03-Jun-2014 00:51
Manganese	0.0122		0.00250	0.00500	mg/L	1	03-Jun-2014 00:51
Potassium	7.60		0.0500	0.200	mg/L	1	03-Jun-2014 00:51
Selenium	0.00124	J	0.00100	0.00500	mg/L	1	03-Jun-2014 00:51
Sodium	143		0.0500	0.200	mg/L	1	03-Jun-2014 00:51
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	0.971		0.0100	0.0500	mg/L	1	06-May-2014 17:37
Surr: 4-Bromofluorobenzene	119			70-130	%REC	1	06-May-2014 17:37
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	2,900		5.00	10.0	mg/L	1	06-May-2014 16:40
ANIONS BY E300.0		Method:E300		Analyst: KKB			
Chloride	127		10.0	25.0	mg/L	50	19-May-2014 19:22
Fluoride	3.06		0.0500	0.100	mg/L	1	20-May-2014 02:13
Sulfate	1,320		10.0	25.0	mg/L	50	19-May-2014 19:22
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 06-May-2014		Analyst: RPM	
TPH (Diesel Range)	8.3		0.041	0.10	mg/L	2	12-May-2014 18:21
Surr: 2-Fluorobiphenyl	216	S		60-135	%REC	2	12-May-2014 18:21
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: KKB			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	21-May-2014 22:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: TEL-3-0414-D
Collection Date: 29-Apr-2014 10:05

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-34
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 19-May-2014		Analyst: ALR	
Arsenic	0.00303	J	0.00100	0.00500	mg/L	1	31-May-2014 00:38
Barium	0.0129		0.000900	0.00500	mg/L	1	31-May-2014 00:38
Chromium	0.00193	J	0.00100	0.00500	mg/L	1	31-May-2014 00:38
Iron	U		0.0780	0.200	mg/L	1	31-May-2014 00:38
Lead	U		0.000700	0.00500	mg/L	1	31-May-2014 00:38
Manganese	0.0105		0.00250	0.00500	mg/L	1	31-May-2014 00:38
Selenium	U		0.00100	0.00500	mg/L	1	31-May-2014 00:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-114-0414
 Collection Date: 29-Apr-2014 12:35

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-35
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:50
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:50
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:50
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	07-May-2014 00:50
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:50
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:50
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	07-May-2014 00:50
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:50
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	07-May-2014 00:50
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:50
2-Butanone	U		0.0010	0.010	mg/L	1	07-May-2014 00:50
2-Hexanone	U		0.0010	0.010	mg/L	1	07-May-2014 00:50
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:50
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	07-May-2014 00:50
Acetone	U		0.0020	0.010	mg/L	1	07-May-2014 00:50
Benzene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:50
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	07-May-2014 00:50
Bromoform	U		0.00050	0.0050	mg/L	1	07-May-2014 00:50
Bromomethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:50
Carbon disulfide	U		0.00090	0.010	mg/L	1	07-May-2014 00:50
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	07-May-2014 00:50
Chlorobenzene	U		0.00040	0.0050	mg/L	1	07-May-2014 00:50
Chloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:50
Chloroform	U		0.00060	0.0050	mg/L	1	07-May-2014 00:50
Chloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:50
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:50
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:50
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:50
Ethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:50
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:50
m,p-Xylene	U		0.00060	0.010	mg/L	1	07-May-2014 00:50
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	07-May-2014 00:50
Methylene chloride	U		0.0010	0.010	mg/L	1	07-May-2014 00:50
Naphthalene	U		0.00070	0.0050	mg/L	1	07-May-2014 00:50
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	07-May-2014 00:50
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:50
o-Xylene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:50
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:50
Styrene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:50
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:50
Toluene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:50
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	07-May-2014 00:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-114-0414
 Collection Date: 29-Apr-2014 12:35

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-35
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:50
Trichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:50
Vinyl chloride	U		0.00040	0.0020	mg/L	1	07-May-2014 00:50
Xylenes, Total	U		0.0015	0.015	mg/L	1	07-May-2014 00:50
Surr: 1,2-Dichloroethane-d4	115			70-125	%REC	1	07-May-2014 00:50
Surr: 4-Bromofluorobenzene	98.6			72-125	%REC	1	07-May-2014 00:50
Surr: Dibromofluoromethane	111			71-125	%REC	1	07-May-2014 00:50
Surr: Toluene-d8	101			75-125	%REC	1	07-May-2014 00:50
ICP-MS METALS BY SW6020A		Method:SW6020				Prep:SW3010A / 21-May-2014 Analyst: JCJ	
Arsenic	0.00292	J	0.00100	0.00500	mg/L	1	03-Jun-2014 00:56
Barium	0.0153		0.000900	0.00500	mg/L	1	03-Jun-2014 00:56
Calcium	611		0.670	5.00	mg/L	10	02-Jun-2014 23:19
Chromium	U		0.00100	0.00500	mg/L	1	03-Jun-2014 00:56
Iron	0.0777	J	0.0500	0.200	mg/L	1	03-Jun-2014 00:56
Lead	U		0.000700	0.00500	mg/L	1	03-Jun-2014 00:56
Manganese	1.20		0.00250	0.00500	mg/L	1	03-Jun-2014 00:56
Potassium	2.84		0.0500	0.200	mg/L	1	03-Jun-2014 00:56
Selenium	0.00124	J	0.00100	0.00500	mg/L	1	03-Jun-2014 00:56
Sodium	152		0.0500	0.200	mg/L	1	03-Jun-2014 00:56
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: DNR	
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	06-May-2014 17:53
Surr: 4-Bromofluorobenzene	105			70-130	%REC	1	06-May-2014 17:53
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	3,620		5.00	10.0	mg/L	1	06-May-2014 16:40
ANIONS BY E300.0		Method:E300				Analyst: KKB	
Chloride	167		10.0	25.0	mg/L	50	19-May-2014 19:46
Fluoride	2.07		0.0500	0.100	mg/L	1	20-May-2014 03:25
Sulfate	1,920		10.0	25.0	mg/L	50	19-May-2014 19:46
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3511 / 06-May-2014 Analyst: RPM	
TPH (Diesel Range)	U		0.020	0.051	mg/L	1	08-May-2014 11:20
Surr: 2-Fluorobiphenyl	120			60-135	%REC	1	08-May-2014 11:20
NITRATE/NITRITE BY E300.0		Method:E300				Analyst: KKB	
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	21-May-2014 23:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-114-0414-D
Collection Date: 29-Apr-2014 12:35

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-36
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 19-May-2014		Analyst: ALR	
Arsenic	0.00297	J	0.00100	0.00500	mg/L	1	31-May-2014 00:43
Barium	0.0136		0.000900	0.00500	mg/L	1	31-May-2014 00:43
Chromium	U		0.00100	0.00500	mg/L	1	31-May-2014 00:43
Iron	U		0.0780	0.200	mg/L	1	31-May-2014 00:43
Lead	U		0.000700	0.00500	mg/L	1	31-May-2014 00:43
Manganese	1.13		0.00250	0.00500	mg/L	1	31-May-2014 00:43
Selenium	U		0.00100	0.00500	mg/L	1	31-May-2014 00:43

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-115-0414
 Collection Date: 29-Apr-2014 13:20

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-37
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 01:15
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 01:15
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 01:15
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	07-May-2014 01:15
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:15
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:15
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	07-May-2014 01:15
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 01:15
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	07-May-2014 01:15
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 01:15
2-Butanone	U		0.0010	0.010	mg/L	1	07-May-2014 01:15
2-Hexanone	U		0.0010	0.010	mg/L	1	07-May-2014 01:15
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:15
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	07-May-2014 01:15
Acetone	U		0.0020	0.010	mg/L	1	07-May-2014 01:15
Benzene	U		0.00060	0.0050	mg/L	1	07-May-2014 01:15
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	07-May-2014 01:15
Bromoform	U		0.00050	0.0050	mg/L	1	07-May-2014 01:15
Bromomethane	U		0.00050	0.0050	mg/L	1	07-May-2014 01:15
Carbon disulfide	U		0.00090	0.010	mg/L	1	07-May-2014 01:15
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	07-May-2014 01:15
Chlorobenzene	U		0.00040	0.0050	mg/L	1	07-May-2014 01:15
Chloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 01:15
Chloroform	U		0.00060	0.0050	mg/L	1	07-May-2014 01:15
Chloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 01:15
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 01:15
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 01:15
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 01:15
Ethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:15
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:15
m,p-Xylene	U		0.00060	0.010	mg/L	1	07-May-2014 01:15
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	07-May-2014 01:15
Methylene chloride	U		0.0010	0.010	mg/L	1	07-May-2014 01:15
Naphthalene	U		0.00070	0.0050	mg/L	1	07-May-2014 01:15
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	07-May-2014 01:15
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:15
o-Xylene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:15
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 01:15
Styrene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:15
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 01:15
Toluene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:15
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	07-May-2014 01:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-115-0414
 Collection Date: 29-Apr-2014 13:20

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-37
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 01:15
Trichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:15
Vinyl chloride	U		0.00040	0.0020	mg/L	1	07-May-2014 01:15
Xylenes, Total	U		0.0015	0.015	mg/L	1	07-May-2014 01:15
Surr: 1,2-Dichloroethane-d4	117			70-125	%REC	1	07-May-2014 01:15
Surr: 4-Bromofluorobenzene	97.7			72-125	%REC	1	07-May-2014 01:15
Surr: Dibromofluoromethane	109			71-125	%REC	1	07-May-2014 01:15
Surr: Toluene-d8	101			75-125	%REC	1	07-May-2014 01:15
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 21-May-2014		Analyst: JCJ	
Arsenic	0.00444	J	0.00100	0.00500	mg/L	1	03-Jun-2014 01:00
Barium	0.0102		0.000900	0.00500	mg/L	1	03-Jun-2014 01:00
Calcium	569		0.670	5.00	mg/L	10	02-Jun-2014 23:24
Chromium	U		0.00100	0.00500	mg/L	1	03-Jun-2014 01:00
Iron	0.0685	J	0.0500	0.200	mg/L	1	03-Jun-2014 01:00
Lead	U		0.000700	0.00500	mg/L	1	03-Jun-2014 01:00
Manganese	0.0262		0.00250	0.00500	mg/L	1	03-Jun-2014 01:00
Potassium	0.645		0.0500	0.200	mg/L	1	03-Jun-2014 01:00
Selenium	0.00190	J	0.00100	0.00500	mg/L	1	03-Jun-2014 01:00
Sodium	227		0.500	2.00	mg/L	10	02-Jun-2014 23:24
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	06-May-2014 18:09
Surr: 4-Bromofluorobenzene	114			70-130	%REC	1	06-May-2014 18:09
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	4,880		5.00	10.0	mg/L	1	06-May-2014 16:40
ANIONS BY E300.0		Method:E300		Analyst: KKB			
Chloride	222		10.0	25.0	mg/L	50	19-May-2014 20:11
Fluoride	1.29		0.0500	0.100	mg/L	1	20-May-2014 03:49
Sulfate	2,470		10.0	25.0	mg/L	50	19-May-2014 20:11
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 06-May-2014		Analyst: RPM	
TPH (Diesel Range)	U		0.021	0.052	mg/L	1	08-May-2014 11:47
Surr: 2-Fluorobiphenyl	118			60-135	%REC	1	08-May-2014 11:47
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: KKB			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	21-May-2014 23:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-115-0414-D
Collection Date: 29-Apr-2014 13:20

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-38
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 19-May-2014		Analyst: JCJ	
Arsenic	0.00368	J	0.00100	0.00500	mg/L	1	29-May-2014 03:31
Barium	0.00870		0.000900	0.00500	mg/L	1	29-May-2014 03:31
Chromium	U		0.00100	0.00500	mg/L	1	29-May-2014 03:31
Iron	U		0.0780	0.200	mg/L	1	29-May-2014 03:31
Lead	U		0.000700	0.00500	mg/L	1	29-May-2014 03:31
Manganese	0.0216		0.00250	0.00500	mg/L	1	29-May-2014 03:31
Selenium	0.00166	J	0.00100	0.00500	mg/L	1	29-May-2014 03:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-116-0414
 Collection Date: 29-Apr-2014 14:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-39
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 01:39
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 01:39
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 01:39
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	07-May-2014 01:39
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:39
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:39
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	07-May-2014 01:39
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 01:39
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	07-May-2014 01:39
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 01:39
2-Butanone	U		0.0010	0.010	mg/L	1	07-May-2014 01:39
2-Hexanone	U		0.0010	0.010	mg/L	1	07-May-2014 01:39
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:39
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	07-May-2014 01:39
Acetone	U		0.0020	0.010	mg/L	1	07-May-2014 01:39
Benzene	U		0.00060	0.0050	mg/L	1	07-May-2014 01:39
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	07-May-2014 01:39
Bromoform	U		0.00050	0.0050	mg/L	1	07-May-2014 01:39
Bromomethane	U		0.00050	0.0050	mg/L	1	07-May-2014 01:39
Carbon disulfide	U		0.00090	0.010	mg/L	1	07-May-2014 01:39
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	07-May-2014 01:39
Chlorobenzene	U		0.00040	0.0050	mg/L	1	07-May-2014 01:39
Chloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 01:39
Chloroform	U		0.00060	0.0050	mg/L	1	07-May-2014 01:39
Chloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 01:39
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 01:39
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 01:39
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 01:39
Ethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:39
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:39
m,p-Xylene	U		0.00060	0.010	mg/L	1	07-May-2014 01:39
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	07-May-2014 01:39
Methylene chloride	U		0.0010	0.010	mg/L	1	07-May-2014 01:39
Naphthalene	U		0.00070	0.0050	mg/L	1	07-May-2014 01:39
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	07-May-2014 01:39
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:39
o-Xylene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:39
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 01:39
Styrene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:39
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 01:39
Toluene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:39
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	07-May-2014 01:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-116-0414
 Collection Date: 29-Apr-2014 14:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-39
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 01:39
Trichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 01:39
Vinyl chloride	U		0.00040	0.0020	mg/L	1	07-May-2014 01:39
Xylenes, Total	U		0.0015	0.015	mg/L	1	07-May-2014 01:39
Surr: 1,2-Dichloroethane-d4	115			70-125	%REC	1	07-May-2014 01:39
Surr: 4-Bromofluorobenzene	97.3			72-125	%REC	1	07-May-2014 01:39
Surr: Dibromofluoromethane	112			71-125	%REC	1	07-May-2014 01:39
Surr: Toluene-d8	101			75-125	%REC	1	07-May-2014 01:39
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 21-May-2014		Analyst: JCJ	
Arsenic	0.00442	J	0.00100	0.00500	mg/L	1	03-Jun-2014 01:05
Barium	0.0102		0.000900	0.00500	mg/L	1	03-Jun-2014 01:05
Calcium	607		0.670	5.00	mg/L	10	02-Jun-2014 23:38
Chromium	U		0.00100	0.00500	mg/L	1	03-Jun-2014 01:05
Iron	0.108	J	0.0500	0.200	mg/L	1	03-Jun-2014 01:05
Lead	U		0.000700	0.00500	mg/L	1	03-Jun-2014 01:05
Manganese	0.00627		0.00250	0.00500	mg/L	1	03-Jun-2014 01:05
Potassium	1.39		0.0500	0.200	mg/L	1	03-Jun-2014 01:05
Selenium	0.00606		0.00100	0.00500	mg/L	1	03-Jun-2014 01:05
Sodium	241		0.500	2.00	mg/L	10	02-Jun-2014 23:38
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	06-May-2014 18:25
Surr: 4-Bromofluorobenzene	111			70-130	%REC	1	06-May-2014 18:25
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	4,520		5.00	10.0	mg/L	1	06-May-2014 16:40
ANIONS BY E300.0		Method:E300		Analyst: KKB			
Chloride	221		10.0	25.0	mg/L	50	19-May-2014 20:35
Fluoride	1.43		0.0500	0.100	mg/L	1	20-May-2014 04:13
Sulfate	2,160		10.0	25.0	mg/L	50	19-May-2014 20:35
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 06-May-2014		Analyst: RPM	
TPH (Diesel Range)	U		0.021	0.052	mg/L	1	08-May-2014 12:13
Surr: 2-Fluorobiphenyl	121			60-135	%REC	1	08-May-2014 12:13
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: KKB			
Nitrate/Nitrite (as N)	2.86		0.150	1.00	mg/L	5	22-May-2014 00:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-116-0414-D
Collection Date: 29-Apr-2014 14:00

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-40
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 19-May-2014		Analyst: JCJ	
Arsenic	0.00348	J	0.00100	0.00500	mg/L	1	29-May-2014 03:37
Barium	0.00950		0.000900	0.00500	mg/L	1	29-May-2014 03:37
Chromium	U		0.00100	0.00500	mg/L	1	29-May-2014 03:37
Iron	U		0.0780	0.200	mg/L	1	29-May-2014 03:37
Lead	U		0.000700	0.00500	mg/L	1	29-May-2014 03:37
Manganese	U		0.00250	0.00500	mg/L	1	29-May-2014 03:37
Selenium	0.00563		0.00100	0.00500	mg/L	1	29-May-2014 03:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-125-0414
 Collection Date: 29-Apr-2014 14:35

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-41
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:02
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:02
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:02
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	07-May-2014 02:02
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:02
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:02
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	07-May-2014 02:02
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:02
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	07-May-2014 02:02
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:02
2-Butanone	U		0.0010	0.010	mg/L	1	07-May-2014 02:02
2-Hexanone	U		0.0010	0.010	mg/L	1	07-May-2014 02:02
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:02
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	07-May-2014 02:02
Acetone	0.0063	J	0.0020	0.010	mg/L	1	07-May-2014 02:02
Benzene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:02
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	07-May-2014 02:02
Bromoform	U		0.00050	0.0050	mg/L	1	07-May-2014 02:02
Bromomethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:02
Carbon disulfide	U		0.00090	0.010	mg/L	1	07-May-2014 02:02
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	07-May-2014 02:02
Chlorobenzene	U		0.00040	0.0050	mg/L	1	07-May-2014 02:02
Chloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:02
Chloroform	U		0.00060	0.0050	mg/L	1	07-May-2014 02:02
Chloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:02
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:02
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:02
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:02
Ethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:02
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:02
m,p-Xylene	U		0.00060	0.010	mg/L	1	07-May-2014 02:02
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	07-May-2014 02:02
Methylene chloride	U		0.0010	0.010	mg/L	1	07-May-2014 02:02
Naphthalene	U		0.00070	0.0050	mg/L	1	07-May-2014 02:02
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	07-May-2014 02:02
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:02
o-Xylene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:02
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:02
Styrene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:02
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:02
Toluene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:02
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	07-May-2014 02:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-125-0414
 Collection Date: 29-Apr-2014 14:35

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-41
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:02
Trichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:02
Vinyl chloride	U		0.00040	0.0020	mg/L	1	07-May-2014 02:02
Xylenes, Total	U		0.0015	0.015	mg/L	1	07-May-2014 02:02
Surr: 1,2-Dichloroethane-d4	113			70-125	%REC	1	07-May-2014 02:02
Surr: 4-Bromofluorobenzene	97.6			72-125	%REC	1	07-May-2014 02:02
Surr: Dibromofluoromethane	110			71-125	%REC	1	07-May-2014 02:02
Surr: Toluene-d8	101			75-125	%REC	1	07-May-2014 02:02
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 21-May-2014		Analyst: JCJ	
Arsenic	0.00471	J	0.00100	0.00500	mg/L	1	03-Jun-2014 01:10
Barium	0.0110		0.000900	0.00500	mg/L	1	03-Jun-2014 01:10
Calcium	636		0.670	5.00	mg/L	10	02-Jun-2014 23:43
Chromium	U		0.00100	0.00500	mg/L	1	03-Jun-2014 01:10
Iron	0.0544	J	0.0500	0.200	mg/L	1	03-Jun-2014 01:10
Lead	U		0.000700	0.00500	mg/L	1	03-Jun-2014 01:10
Manganese	0.470		0.00250	0.00500	mg/L	1	03-Jun-2014 01:10
Potassium	1.56		0.0500	0.200	mg/L	1	03-Jun-2014 01:10
Selenium	0.00901		0.00100	0.00500	mg/L	1	03-Jun-2014 01:10
Sodium	297		0.500	2.00	mg/L	10	02-Jun-2014 23:43
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	0.0383	J	0.0100	0.0500	mg/L	1	06-May-2014 14:58
Surr: 4-Bromofluorobenzene	110			70-130	%REC	1	06-May-2014 14:58
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	4,960		5.00	10.0	mg/L	1	06-May-2014 16:40
ANIONS BY E300.0		Method:E300		Analyst: KKB			
Chloride	361		10.0	25.0	mg/L	50	19-May-2014 20:59
Fluoride	1.17		0.0500	0.100	mg/L	1	20-May-2014 06:14
Sulfate	2,700		10.0	25.0	mg/L	50	19-May-2014 20:59
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 06-May-2014		Analyst: RPM	
TPH (Diesel Range)	U		0.021	0.053	mg/L	1	08-May-2014 13:33
Surr: 2-Fluorobiphenyl	116			60-135	%REC	1	08-May-2014 13:33
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	0.399	J	0.150	1.00	mg/L	5	22-May-2014 06:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-125-0414-D
 Collection Date: 29-Apr-2014 14:35

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-42
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 19-May-2014		Analyst: JCJ	
Arsenic	0.00406	J	0.00100	0.00500	mg/L	1	29-May-2014 03:42
Barium	0.00914		0.000900	0.00500	mg/L	1	29-May-2014 03:42
Chromium	U		0.00100	0.00500	mg/L	1	29-May-2014 03:42
Iron	U		0.0780	0.200	mg/L	1	29-May-2014 03:42
Lead	U		0.000700	0.00500	mg/L	1	29-May-2014 03:42
Manganese	0.395		0.00250	0.00500	mg/L	1	29-May-2014 03:42
Selenium	0.00773		0.00100	0.00500	mg/L	1	29-May-2014 03:42

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: EB-18-0414
 Collection Date: 29-Apr-2014 15:20

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-43
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 23:38
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 23:38
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 23:38
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	06-May-2014 23:38
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 23:38
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 23:38
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	06-May-2014 23:38
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 23:38
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	06-May-2014 23:38
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 23:38
2-Butanone	U		0.0010	0.010	mg/L	1	06-May-2014 23:38
2-Hexanone	U		0.0010	0.010	mg/L	1	06-May-2014 23:38
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	06-May-2014 23:38
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	06-May-2014 23:38
Acetone	0.0065	J	0.0020	0.010	mg/L	1	06-May-2014 23:38
Benzene	U		0.00060	0.0050	mg/L	1	06-May-2014 23:38
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	06-May-2014 23:38
Bromoform	U		0.00050	0.0050	mg/L	1	06-May-2014 23:38
Bromomethane	U		0.00050	0.0050	mg/L	1	06-May-2014 23:38
Carbon disulfide	U		0.00090	0.010	mg/L	1	06-May-2014 23:38
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	06-May-2014 23:38
Chlorobenzene	U		0.00040	0.0050	mg/L	1	06-May-2014 23:38
Chloroethane	U		0.00050	0.0050	mg/L	1	06-May-2014 23:38
Chloroform	U		0.00060	0.0050	mg/L	1	06-May-2014 23:38
Chloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 23:38
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 23:38
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 23:38
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	06-May-2014 23:38
Ethylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 23:38
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 23:38
m,p-Xylene	U		0.00060	0.010	mg/L	1	06-May-2014 23:38
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	06-May-2014 23:38
Methylene chloride	U		0.0010	0.010	mg/L	1	06-May-2014 23:38
Naphthalene	U		0.00070	0.0050	mg/L	1	06-May-2014 23:38
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	06-May-2014 23:38
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	06-May-2014 23:38
o-Xylene	U		0.00050	0.0050	mg/L	1	06-May-2014 23:38
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	06-May-2014 23:38
Styrene	U		0.00050	0.0050	mg/L	1	06-May-2014 23:38
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	06-May-2014 23:38
Toluene	U		0.00050	0.0050	mg/L	1	06-May-2014 23:38
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	06-May-2014 23:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: EB-18-0414
 Collection Date: 29-Apr-2014 15:20

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-43
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	06-May-2014 23:38
Trichloroethene	U		0.00050	0.0050	mg/L	1	06-May-2014 23:38
Vinyl chloride	U		0.00040	0.0020	mg/L	1	06-May-2014 23:38
Xylenes, Total	U		0.0015	0.015	mg/L	1	06-May-2014 23:38
Surr: 1,2-Dichloroethane-d4	115			70-125	%REC	1	06-May-2014 23:38
Surr: 4-Bromofluorobenzene	97.1			72-125	%REC	1	06-May-2014 23:38
Surr: Dibromofluoromethane	110			71-125	%REC	1	06-May-2014 23:38
Surr: Toluene-d8	100.0			75-125	%REC	1	06-May-2014 23:38
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 21-May-2014		Analyst: JCJ	
Arsenic	U		0.00100	0.00500	mg/L	1	02-Jun-2014 23:48
Barium	U		0.000900	0.00500	mg/L	1	02-Jun-2014 23:48
Calcium	0.256	J	0.0670	0.500	mg/L	1	02-Jun-2014 23:48
Chromium	U		0.00100	0.00500	mg/L	1	02-Jun-2014 23:48
Iron	U		0.0500	0.200	mg/L	1	02-Jun-2014 23:48
Lead	U		0.000700	0.00500	mg/L	1	02-Jun-2014 23:48
Manganese	U		0.00250	0.00500	mg/L	1	02-Jun-2014 23:48
Nickel	U		0.00100	0.00500	mg/L	1	02-Jun-2014 23:48
Potassium	U		0.0500	0.200	mg/L	1	02-Jun-2014 23:48
Selenium	U		0.00100	0.00500	mg/L	1	02-Jun-2014 23:48
Sodium	0.239		0.0500	0.200	mg/L	1	02-Jun-2014 23:48
Vanadium	U		0.000900	0.00500	mg/L	1	02-Jun-2014 23:48
CYANIDE BY SW9012B		Method:SW9012		Prep:SW9010C / 05-May-2014		Analyst: KKB	
Cyanide	0.0100	J	0.00500	0.0200	mg/L	1	06-May-2014 18:08
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	06-May-2014 18:40
Surr: 4-Bromofluorobenzene	112			70-130	%REC	1	06-May-2014 18:40
MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 27-May-2014		Analyst: JBA	
Mercury	U		0.0000400	0.000200	mg/L	1	28-May-2014 12:00
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	U		5.00	10.0	mg/L	1	06-May-2014 16:40
ANIONS BY E300.0		Method:E300		Analyst: KKB			
Chloride	U		0.200	0.500	mg/L	1	20-May-2014 06:38
Fluoride	U		0.0500	0.100	mg/L	1	20-May-2014 06:38
Sulfate	0.355	J	0.200	0.500	mg/L	1	20-May-2014 06:38
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 06-May-2014		Analyst: RPM	
TPH (Diesel Range)	U		0.020	0.051	mg/L	1	08-May-2014 14:00
Surr: 2-Fluorobiphenyl	121			60-135	%REC	1	08-May-2014 14:00
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	22-May-2014 07:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: EB-18-0414-D
 Collection Date: 29-Apr-2014 15:20

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-44
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 19-May-2014		Analyst: JCJ	
Arsenic	U		0.00100	0.00500	mg/L	1	29-May-2014 03:47
Barium	U		0.000900	0.00500	mg/L	1	29-May-2014 03:47
Chromium	U		0.00100	0.00500	mg/L	1	29-May-2014 03:47
Iron	U		0.0780	0.200	mg/L	1	29-May-2014 03:47
Lead	U		0.000700	0.00500	mg/L	1	29-May-2014 03:47
Manganese	U		0.00250	0.00500	mg/L	1	29-May-2014 03:47
Nickel	U		0.00100	0.00500	mg/L	1	29-May-2014 03:47
Selenium	U		0.00100	0.00500	mg/L	1	29-May-2014 03:47
Vanadium	U		0.000900	0.00500	mg/L	1	29-May-2014 03:47
DISSOLVED MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 27-May-2014		Analyst: JBA	
Mercury	U		0.0000420	0.000200	mg/L	1	27-May-2014 17:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-117-0414
 Collection Date: 30-Apr-2014 09:20

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-45
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:26
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:26
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:26
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	07-May-2014 02:26
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:26
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:26
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	07-May-2014 02:26
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:26
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	07-May-2014 02:26
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:26
2-Butanone	U		0.0010	0.010	mg/L	1	07-May-2014 02:26
2-Hexanone	U		0.0010	0.010	mg/L	1	07-May-2014 02:26
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:26
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	07-May-2014 02:26
Acetone	U		0.0020	0.010	mg/L	1	07-May-2014 02:26
Benzene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:26
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	07-May-2014 02:26
Bromoform	U		0.00050	0.0050	mg/L	1	07-May-2014 02:26
Bromomethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:26
Carbon disulfide	U		0.00090	0.010	mg/L	1	07-May-2014 02:26
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	07-May-2014 02:26
Chlorobenzene	U		0.00040	0.0050	mg/L	1	07-May-2014 02:26
Chloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:26
Chloroform	U		0.00060	0.0050	mg/L	1	07-May-2014 02:26
Chloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:26
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:26
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:26
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:26
Ethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:26
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:26
m,p-Xylene	U		0.00060	0.010	mg/L	1	07-May-2014 02:26
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	07-May-2014 02:26
Methylene chloride	U		0.0010	0.010	mg/L	1	07-May-2014 02:26
Naphthalene	U		0.00070	0.0050	mg/L	1	07-May-2014 02:26
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	07-May-2014 02:26
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:26
o-Xylene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:26
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:26
Styrene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:26
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:26
Toluene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:26
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	07-May-2014 02:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-117-0414
 Collection Date: 30-Apr-2014 09:20

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-45
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:26
Trichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:26
Vinyl chloride	U		0.00040	0.0020	mg/L	1	07-May-2014 02:26
Xylenes, Total	U		0.0015	0.015	mg/L	1	07-May-2014 02:26
Surr: 1,2-Dichloroethane-d4	117			70-125	%REC	1	07-May-2014 02:26
Surr: 4-Bromofluorobenzene	98.3			72-125	%REC	1	07-May-2014 02:26
Surr: Dibromofluoromethane	110			71-125	%REC	1	07-May-2014 02:26
Surr: Toluene-d8	101			75-125	%REC	1	07-May-2014 02:26
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 21-May-2014		Analyst: JCJ	
Arsenic	0.00366	J	0.00100	0.00500	mg/L	1	03-Jun-2014 01:15
Barium	0.0170		0.000900	0.00500	mg/L	1	03-Jun-2014 01:15
Calcium	646		0.670	5.00	mg/L	10	02-Jun-2014 23:53
Chromium	0.00210	J	0.00100	0.00500	mg/L	1	03-Jun-2014 01:15
Iron	0.780		0.0500	0.200	mg/L	1	03-Jun-2014 01:15
Lead	0.00109	J	0.000700	0.00500	mg/L	1	03-Jun-2014 01:15
Manganese	0.0330		0.00250	0.00500	mg/L	1	03-Jun-2014 01:15
Potassium	9.29		0.0500	0.200	mg/L	1	03-Jun-2014 01:15
Selenium	0.00539		0.00100	0.00500	mg/L	1	03-Jun-2014 01:15
Sodium	167		0.0500	0.200	mg/L	1	03-Jun-2014 01:15
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	07-May-2014 03:08
Surr: 4-Bromofluorobenzene	109			70-130	%REC	1	07-May-2014 03:08
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	4,980		5.00	10.0	mg/L	1	07-May-2014 17:40
ANIONS BY E300.0		Method:E300		Analyst: KKB			
Chloride	97.0		10.0	25.0	mg/L	50	19-May-2014 22:35
Fluoride	3.03		0.0500	0.100	mg/L	1	20-May-2014 07:02
Sulfate	2,140		10.0	25.0	mg/L	50	19-May-2014 22:35
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 06-May-2014		Analyst: RPM	
TPH (Diesel Range)	U		0.022	0.056	mg/L	1	08-May-2014 14:26
Surr: 2-Fluorobiphenyl	122			60-135	%REC	1	08-May-2014 14:26
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	22-May-2014 07:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-117-0414-D
Collection Date: 30-Apr-2014 09:20

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-46
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 19-May-2014		Analyst: ALR	
Arsenic	0.00328	J	0.00100	0.00500	mg/L	1	31-May-2014 00:48
Barium	0.00991		0.000900	0.00500	mg/L	1	31-May-2014 00:48
Chromium	U		0.00100	0.00500	mg/L	1	31-May-2014 00:48
Iron	U		0.0780	0.200	mg/L	1	31-May-2014 00:48
Lead	U		0.000700	0.00500	mg/L	1	31-May-2014 00:48
Manganese	0.0204		0.00250	0.00500	mg/L	1	31-May-2014 00:48
Selenium	0.00425	J	0.00100	0.00500	mg/L	1	31-May-2014 00:48

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-118-0414
 Collection Date: 30-Apr-2014 10:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-47
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:50
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:50
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:50
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	07-May-2014 02:50
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:50
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:50
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	07-May-2014 02:50
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:50
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	07-May-2014 02:50
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:50
2-Butanone	U		0.0010	0.010	mg/L	1	07-May-2014 02:50
2-Hexanone	U		0.0010	0.010	mg/L	1	07-May-2014 02:50
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:50
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	07-May-2014 02:50
Acetone	U		0.0020	0.010	mg/L	1	07-May-2014 02:50
Benzene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:50
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	07-May-2014 02:50
Bromoform	U		0.00050	0.0050	mg/L	1	07-May-2014 02:50
Bromomethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:50
Carbon disulfide	U		0.00090	0.010	mg/L	1	07-May-2014 02:50
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	07-May-2014 02:50
Chlorobenzene	U		0.00040	0.0050	mg/L	1	07-May-2014 02:50
Chloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:50
Chloroform	U		0.00060	0.0050	mg/L	1	07-May-2014 02:50
Chloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:50
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:50
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:50
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 02:50
Ethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:50
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:50
m,p-Xylene	U		0.00060	0.010	mg/L	1	07-May-2014 02:50
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	07-May-2014 02:50
Methylene chloride	U		0.0010	0.010	mg/L	1	07-May-2014 02:50
Naphthalene	U		0.00070	0.0050	mg/L	1	07-May-2014 02:50
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	07-May-2014 02:50
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:50
o-Xylene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:50
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:50
Styrene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:50
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:50
Toluene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:50
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	07-May-2014 02:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-118-0414
 Collection Date: 30-Apr-2014 10:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-47
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 02:50
Trichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 02:50
Vinyl chloride	U		0.00040	0.0020	mg/L	1	07-May-2014 02:50
Xylenes, Total	U		0.0015	0.015	mg/L	1	07-May-2014 02:50
Surr: 1,2-Dichloroethane-d4	114			70-125	%REC	1	07-May-2014 02:50
Surr: 4-Bromofluorobenzene	99.0			72-125	%REC	1	07-May-2014 02:50
Surr: Dibromofluoromethane	106			71-125	%REC	1	07-May-2014 02:50
Surr: Toluene-d8	101			75-125	%REC	1	07-May-2014 02:50
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 21-May-2014		Analyst: JCJ	
Arsenic	0.0109		0.00100	0.00500	mg/L	1	03-Jun-2014 02:51
Barium	0.0147		0.000900	0.00500	mg/L	1	03-Jun-2014 02:51
Calcium	732		0.670	5.00	mg/L	10	02-Jun-2014 23:58
Chromium	0.00312	J	0.00100	0.00500	mg/L	1	03-Jun-2014 02:51
Iron	0.952		0.0500	0.200	mg/L	1	03-Jun-2014 02:51
Lead	0.00266	J	0.000700	0.00500	mg/L	1	03-Jun-2014 02:51
Manganese	0.0526		0.00250	0.00500	mg/L	1	03-Jun-2014 02:51
Potassium	6.15		0.0500	0.200	mg/L	1	03-Jun-2014 02:51
Selenium	U		0.00100	0.00500	mg/L	1	03-Jun-2014 02:51
Sodium	134		0.0500	0.200	mg/L	1	03-Jun-2014 02:51
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	07-May-2014 03:24
Surr: 4-Bromofluorobenzene	105			70-130	%REC	1	07-May-2014 03:24
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	5,200		5.00	10.0	mg/L	1	07-May-2014 17:40
ANIONS BY E300.0		Method:E300		Analyst: KKB			
Chloride	92.3		10.0	25.0	mg/L	50	19-May-2014 23:00
Fluoride	5.58		0.0500	0.100	mg/L	1	20-May-2014 07:26
Sulfate	2,190		10.0	25.0	mg/L	50	19-May-2014 23:00
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 06-May-2014		Analyst: RPM	
TPH (Diesel Range)	U		0.021	0.053	mg/L	1	08-May-2014 14:53
Surr: 2-Fluorobiphenyl	110			60-135	%REC	1	08-May-2014 14:53
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	22-May-2014 08:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-118-0414-D
Collection Date: 30-Apr-2014 10:00

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-48
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 19-May-2014		Analyst: ALR	
Arsenic	0.00974		0.00100	0.00500	mg/L	1	31-May-2014 00:53
Barium	0.00974		0.000900	0.00500	mg/L	1	31-May-2014 00:53
Chromium	U		0.00100	0.00500	mg/L	1	31-May-2014 00:53
Iron	U		0.0780	0.200	mg/L	1	31-May-2014 00:53
Lead	U		0.000700	0.00500	mg/L	1	31-May-2014 00:53
Manganese	0.0121		0.00250	0.00500	mg/L	1	31-May-2014 00:53
Selenium	0.00108	J	0.00100	0.00500	mg/L	1	31-May-2014 00:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-119-0414
 Collection Date: 30-Apr-2014 10:40

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-49
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 03:14
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 03:14
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 03:14
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	07-May-2014 03:14
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:14
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:14
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	07-May-2014 03:14
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 03:14
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	07-May-2014 03:14
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 03:14
2-Butanone	U		0.0010	0.010	mg/L	1	07-May-2014 03:14
2-Hexanone	U		0.0010	0.010	mg/L	1	07-May-2014 03:14
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:14
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	07-May-2014 03:14
Acetone	0.0055	J	0.0020	0.010	mg/L	1	07-May-2014 03:14
Benzene	U		0.00060	0.0050	mg/L	1	07-May-2014 03:14
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	07-May-2014 03:14
Bromoform	U		0.00050	0.0050	mg/L	1	07-May-2014 03:14
Bromomethane	U		0.00050	0.0050	mg/L	1	07-May-2014 03:14
Carbon disulfide	U		0.00090	0.010	mg/L	1	07-May-2014 03:14
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	07-May-2014 03:14
Chlorobenzene	U		0.00040	0.0050	mg/L	1	07-May-2014 03:14
Chloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 03:14
Chloroform	U		0.00060	0.0050	mg/L	1	07-May-2014 03:14
Chloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 03:14
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 03:14
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 03:14
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 03:14
Ethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:14
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:14
m,p-Xylene	U		0.00060	0.010	mg/L	1	07-May-2014 03:14
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	07-May-2014 03:14
Methylene chloride	U		0.0010	0.010	mg/L	1	07-May-2014 03:14
Naphthalene	U		0.00070	0.0050	mg/L	1	07-May-2014 03:14
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	07-May-2014 03:14
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:14
o-Xylene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:14
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 03:14
Styrene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:14
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 03:14
Toluene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:14
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	07-May-2014 03:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-119-0414
 Collection Date: 30-Apr-2014 10:40

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-49
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 03:14
Trichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:14
Vinyl chloride	U		0.00040	0.0020	mg/L	1	07-May-2014 03:14
Xylenes, Total	U		0.0015	0.015	mg/L	1	07-May-2014 03:14
Surr: 1,2-Dichloroethane-d4	115			70-125	%REC	1	07-May-2014 03:14
Surr: 4-Bromofluorobenzene	97.7			72-125	%REC	1	07-May-2014 03:14
Surr: Dibromofluoromethane	111			71-125	%REC	1	07-May-2014 03:14
Surr: Toluene-d8	101			75-125	%REC	1	07-May-2014 03:14
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 21-May-2014		Analyst: JCJ	
Arsenic	0.00470	J	0.00100	0.00500	mg/L	1	03-Jun-2014 02:56
Barium	0.0126		0.000900	0.00500	mg/L	1	03-Jun-2014 02:56
Calcium	680		0.670	5.00	mg/L	10	03-Jun-2014 00:02
Chromium	0.00119	J	0.00100	0.00500	mg/L	1	03-Jun-2014 02:56
Iron	0.350		0.0500	0.200	mg/L	1	03-Jun-2014 02:56
Lead	U		0.000700	0.00500	mg/L	1	03-Jun-2014 02:56
Manganese	0.0148		0.00250	0.00500	mg/L	1	03-Jun-2014 02:56
Potassium	1.13		0.0500	0.200	mg/L	1	03-Jun-2014 02:56
Selenium	0.00408	J	0.00100	0.00500	mg/L	1	03-Jun-2014 02:56
Sodium	140		0.0500	0.200	mg/L	1	03-Jun-2014 02:56
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	07-May-2014 03:40
Surr: 4-Bromofluorobenzene	108			70-130	%REC	1	07-May-2014 03:40
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	4,200		5.00	10.0	mg/L	1	07-May-2014 17:40
ANIONS BY E300.0		Method:E300		Analyst: KKB			
Chloride	235		10.0	25.0	mg/L	50	19-May-2014 23:24
Fluoride	2.61		0.0500	0.100	mg/L	1	20-May-2014 07:50
Sulfate	1,980		10.0	25.0	mg/L	50	19-May-2014 23:24
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 06-May-2014		Analyst: RPM	
TPH (Diesel Range)	U		0.020	0.051	mg/L	1	08-May-2014 15:20
Surr: 2-Fluorobiphenyl	123			60-135	%REC	1	08-May-2014 15:20
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	0.176	J	0.150	1.00	mg/L	5	22-May-2014 08:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-119-0414-D
Collection Date: 30-Apr-2014 10:40

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-50
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 21-May-2014		Analyst: JCJ	
Arsenic	0.00468	J	0.00100	0.00500	mg/L	1	03-Jun-2014 06:06
Barium	0.00976		0.000900	0.00500	mg/L	1	03-Jun-2014 06:06
Chromium	U		0.00100	0.00500	mg/L	1	03-Jun-2014 06:06
Iron	U		0.0780	0.200	mg/L	1	03-Jun-2014 06:06
Lead	U		0.000700	0.00500	mg/L	1	03-Jun-2014 06:06
Manganese	U		0.00250	0.00500	mg/L	1	03-Jun-2014 06:06
Selenium	0.00393	J	0.00100	0.00500	mg/L	1	03-Jun-2014 06:06

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: DUP-15-0414
 Collection Date: 30-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-51
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 03:39
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 03:39
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 03:39
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	07-May-2014 03:39
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:39
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:39
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	07-May-2014 03:39
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 03:39
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	07-May-2014 03:39
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 03:39
2-Butanone	U		0.0010	0.010	mg/L	1	07-May-2014 03:39
2-Hexanone	U		0.0010	0.010	mg/L	1	07-May-2014 03:39
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:39
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	07-May-2014 03:39
Acetone	U		0.0020	0.010	mg/L	1	07-May-2014 03:39
Benzene	U		0.00060	0.0050	mg/L	1	07-May-2014 03:39
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	07-May-2014 03:39
Bromoform	U		0.00050	0.0050	mg/L	1	07-May-2014 03:39
Bromomethane	U		0.00050	0.0050	mg/L	1	07-May-2014 03:39
Carbon disulfide	U		0.00090	0.010	mg/L	1	07-May-2014 03:39
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	07-May-2014 03:39
Chlorobenzene	U		0.00040	0.0050	mg/L	1	07-May-2014 03:39
Chloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 03:39
Chloroform	U		0.00060	0.0050	mg/L	1	07-May-2014 03:39
Chloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 03:39
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 03:39
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 03:39
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 03:39
Ethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:39
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:39
m,p-Xylene	U		0.00060	0.010	mg/L	1	07-May-2014 03:39
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	07-May-2014 03:39
Methylene chloride	U		0.0010	0.010	mg/L	1	07-May-2014 03:39
Naphthalene	U		0.00070	0.0050	mg/L	1	07-May-2014 03:39
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	07-May-2014 03:39
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:39
o-Xylene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:39
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 03:39
Styrene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:39
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 03:39
Toluene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:39
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	07-May-2014 03:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: DUP-15-0414
 Collection Date: 30-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-51
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 03:39
Trichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 03:39
Vinyl chloride	U		0.00040	0.0020	mg/L	1	07-May-2014 03:39
Xylenes, Total	U		0.0015	0.015	mg/L	1	07-May-2014 03:39
Surr: 1,2-Dichloroethane-d4	116			70-125	%REC	1	07-May-2014 03:39
Surr: 4-Bromofluorobenzene	97.5			72-125	%REC	1	07-May-2014 03:39
Surr: Dibromofluoromethane	111			71-125	%REC	1	07-May-2014 03:39
Surr: Toluene-d8	100.0			75-125	%REC	1	07-May-2014 03:39
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 21-May-2014		Analyst: JCJ	
Arsenic	0.00446	J	0.00100	0.00500	mg/L	1	03-Jun-2014 03:01
Barium	0.0126		0.000900	0.00500	mg/L	1	03-Jun-2014 03:01
Calcium	655		0.670	5.00	mg/L	10	03-Jun-2014 00:07
Chromium	0.00114	J	0.00100	0.00500	mg/L	1	03-Jun-2014 03:01
Iron	0.341		0.0500	0.200	mg/L	1	03-Jun-2014 03:01
Lead	U		0.000700	0.00500	mg/L	1	03-Jun-2014 03:01
Manganese	0.0136		0.00250	0.00500	mg/L	1	03-Jun-2014 03:01
Potassium	1.08		0.0500	0.200	mg/L	1	03-Jun-2014 03:01
Selenium	0.00369	J	0.00100	0.00500	mg/L	1	03-Jun-2014 03:01
Sodium	136		0.0500	0.200	mg/L	1	03-Jun-2014 03:01
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	07-May-2014 03:56
Surr: 4-Bromofluorobenzene	102			70-130	%REC	1	07-May-2014 03:56
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	4,140		5.00	10.0	mg/L	1	07-May-2014 17:40
ANIONS BY E300.0		Method:E300		Analyst: KKB			
Chloride	216		10.0	25.0	mg/L	50	19-May-2014 23:48
Fluoride	2.62		0.0500	0.100	mg/L	1	20-May-2014 08:15
Sulfate	1,830		10.0	25.0	mg/L	50	19-May-2014 23:48
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 06-May-2014		Analyst: RPM	
TPH (Diesel Range)	U		0.021	0.052	mg/L	1	08-May-2014 15:46
Surr: 2-Fluorobiphenyl	123			60-135	%REC	1	08-May-2014 15:46
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	0.174	J	0.150	1.00	mg/L	5	22-May-2014 08:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: DUP-15-0414-D
Collection Date: 30-Apr-2014 00:00

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-52
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 21-May-2014		Analyst: JCJ	
Arsenic	0.00461	J	0.00100	0.00500	mg/L	1	03-Jun-2014 06:11
Barium	0.00925		0.000900	0.00500	mg/L	1	03-Jun-2014 06:11
Chromium	U		0.00100	0.00500	mg/L	1	03-Jun-2014 06:11
Iron	U		0.0780	0.200	mg/L	1	03-Jun-2014 06:11
Lead	U		0.000700	0.00500	mg/L	1	03-Jun-2014 06:11
Manganese	U		0.00250	0.00500	mg/L	1	03-Jun-2014 06:11
Selenium	0.00402	J	0.00100	0.00500	mg/L	1	03-Jun-2014 06:11

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-46R-0414
 Collection Date: 30-Apr-2014 08:45

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-53
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C			Method:SW8260			Analyst: KKP	
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	08-May-2014 18:15
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	08-May-2014 18:15
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	08-May-2014 18:15
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	08-May-2014 18:15
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	08-May-2014 18:15
1,2,4-Trimethylbenzene	0.00074	J	0.00050	0.0050	mg/L	1	08-May-2014 18:15
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	08-May-2014 18:15
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	08-May-2014 18:15
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	08-May-2014 18:15
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	08-May-2014 18:15
2-Butanone	U		0.0010	0.010	mg/L	1	08-May-2014 18:15
2-Hexanone	U		0.0010	0.010	mg/L	1	08-May-2014 18:15
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	08-May-2014 18:15
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	08-May-2014 18:15
Acetone	U		0.0020	0.010	mg/L	1	08-May-2014 18:15
Benzene	U		0.00060	0.0050	mg/L	1	08-May-2014 18:15
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	08-May-2014 18:15
Bromoform	U		0.00050	0.0050	mg/L	1	08-May-2014 18:15
Bromomethane	U		0.00050	0.0050	mg/L	1	08-May-2014 18:15
Carbon disulfide	U		0.00090	0.010	mg/L	1	08-May-2014 18:15
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	08-May-2014 18:15
Chlorobenzene	U		0.00040	0.0050	mg/L	1	08-May-2014 18:15
Chloroethane	U		0.00050	0.0050	mg/L	1	08-May-2014 18:15
Chloroform	U		0.00060	0.0050	mg/L	1	08-May-2014 18:15
Chloromethane	U		0.00050	0.0050	mg/L	1	08-May-2014 18:15
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	08-May-2014 18:15
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	08-May-2014 18:15
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	08-May-2014 18:15
Ethylbenzene	0.00086	J	0.00050	0.0050	mg/L	1	08-May-2014 18:15
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	08-May-2014 18:15
m,p-Xylene	0.0015	J	0.00060	0.010	mg/L	1	08-May-2014 18:15
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	08-May-2014 18:15
Methylene chloride	U		0.0010	0.010	mg/L	1	08-May-2014 18:15
Naphthalene	U		0.00070	0.0050	mg/L	1	08-May-2014 18:15
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	08-May-2014 18:15
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	08-May-2014 18:15
o-Xylene	U		0.00050	0.0050	mg/L	1	08-May-2014 18:15
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	08-May-2014 18:15
Styrene	U		0.00050	0.0050	mg/L	1	08-May-2014 18:15
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	08-May-2014 18:15
Toluene	U		0.00050	0.0050	mg/L	1	08-May-2014 18:15
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	08-May-2014 18:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: MW-46R-0414
 Collection Date: 30-Apr-2014 08:45

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-53
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	08-May-2014 18:15
Trichloroethene	U		0.00050	0.0050	mg/L	1	08-May-2014 18:15
Vinyl chloride	U		0.00040	0.0020	mg/L	1	08-May-2014 18:15
Xylenes, Total	U		0.0015	0.015	mg/L	1	08-May-2014 18:15
Surr: 1,2-Dichloroethane-d4	115			70-125	%REC	1	08-May-2014 18:15
Surr: 4-Bromofluorobenzene	98.0			72-125	%REC	1	08-May-2014 18:15
Surr: Dibromofluoromethane	111			71-125	%REC	1	08-May-2014 18:15
Surr: Toluene-d8	99.9			75-125	%REC	1	08-May-2014 18:15
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 21-May-2014		Analyst: JCJ	
Arsenic	0.00338	J	0.00100	0.00500	mg/L	1	03-Jun-2014 03:06
Barium	0.0259		0.000900	0.00500	mg/L	1	03-Jun-2014 03:06
Calcium	592		0.670	5.00	mg/L	10	03-Jun-2014 00:12
Chromium	0.00222	J	0.00100	0.00500	mg/L	1	03-Jun-2014 03:06
Iron	0.621		0.0500	0.200	mg/L	1	03-Jun-2014 03:06
Lead	U		0.000700	0.00500	mg/L	1	03-Jun-2014 03:06
Manganese	0.0998		0.00250	0.00500	mg/L	1	03-Jun-2014 03:06
Potassium	1.56		0.0500	0.200	mg/L	1	03-Jun-2014 03:06
Selenium	0.00624		0.00100	0.00500	mg/L	1	03-Jun-2014 03:06
Sodium	165		0.0500	0.200	mg/L	1	03-Jun-2014 03:06
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	4,540		5.00	10.0	mg/L	1	07-May-2014 17:40
ANIONS BY E300.0		Method:E300		Analyst: KKB			
Chloride	191		10.0	25.0	mg/L	50	20-May-2014 00:12
Fluoride	1.61		0.0500	0.100	mg/L	1	20-May-2014 08:39
Sulfate	2,120		10.0	25.0	mg/L	50	20-May-2014 00:12
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 06-May-2014		Analyst: RPM	
TPH (Diesel Range)	U		0.021	0.052	mg/L	1	08-May-2014 16:13
Surr: 2-Fluorobiphenyl	122			60-135	%REC	1	08-May-2014 16:13
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	0.394	J	0.150	1.00	mg/L	5	22-May-2014 09:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: MW-46R-0414-D
Collection Date: 30-Apr-2014 08:45

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-54
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 21-May-2014		Analyst: JCJ	
Arsenic	0.00348	J	0.00100	0.00500	mg/L	1	03-Jun-2014 06:17
Barium	0.0120		0.000900	0.00500	mg/L	1	03-Jun-2014 06:17
Chromium	U		0.00100	0.00500	mg/L	1	03-Jun-2014 06:17
Iron	0.0908	J	0.0780	0.200	mg/L	1	03-Jun-2014 06:17
Lead	U		0.000700	0.00500	mg/L	1	03-Jun-2014 06:17
Manganese	0.0925		0.00250	0.00500	mg/L	1	03-Jun-2014 06:17
Selenium	0.00666		0.00100	0.00500	mg/L	1	03-Jun-2014 06:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: EB-19-0414
 Collection Date: 30-Apr-2014 12:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-55
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C	Method:SW8260						Analyst: KKP
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:02
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:02
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:02
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	07-May-2014 00:02
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:02
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:02
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	07-May-2014 00:02
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:02
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	07-May-2014 00:02
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:02
2-Butanone	U		0.0010	0.010	mg/L	1	07-May-2014 00:02
2-Hexanone	U		0.0010	0.010	mg/L	1	07-May-2014 00:02
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:02
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	07-May-2014 00:02
Acetone	0.0067	J	0.0020	0.010	mg/L	1	07-May-2014 00:02
Benzene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:02
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	07-May-2014 00:02
Bromoform	U		0.00050	0.0050	mg/L	1	07-May-2014 00:02
Bromomethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:02
Carbon disulfide	U		0.00090	0.010	mg/L	1	07-May-2014 00:02
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	07-May-2014 00:02
Chlorobenzene	U		0.00040	0.0050	mg/L	1	07-May-2014 00:02
Chloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:02
Chloroform	U		0.00060	0.0050	mg/L	1	07-May-2014 00:02
Chloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:02
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:02
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:02
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:02
Ethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:02
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:02
m,p-Xylene	U		0.00060	0.010	mg/L	1	07-May-2014 00:02
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	07-May-2014 00:02
Methylene chloride	U		0.0010	0.010	mg/L	1	07-May-2014 00:02
Naphthalene	U		0.00070	0.0050	mg/L	1	07-May-2014 00:02
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	07-May-2014 00:02
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:02
o-Xylene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:02
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:02
Styrene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:02
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:02
Toluene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:02
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	07-May-2014 00:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: EB-19-0414
 Collection Date: 30-Apr-2014 12:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-55
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:02
Trichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:02
Vinyl chloride	U		0.00040	0.0020	mg/L	1	07-May-2014 00:02
Xylenes, Total	U		0.0015	0.015	mg/L	1	07-May-2014 00:02
Surr: 1,2-Dichloroethane-d4	115			70-125	%REC	1	07-May-2014 00:02
Surr: 4-Bromofluorobenzene	97.3			72-125	%REC	1	07-May-2014 00:02
Surr: Dibromofluoromethane	108			71-125	%REC	1	07-May-2014 00:02
Surr: Toluene-d8	100			75-125	%REC	1	07-May-2014 00:02
ICP-MS METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 21-May-2014		Analyst: JCJ	
Arsenic	U		0.00100	0.00500	mg/L	1	03-Jun-2014 00:17
Barium	U		0.000900	0.00500	mg/L	1	03-Jun-2014 00:17
Calcium	0.247	J	0.0670	0.500	mg/L	1	03-Jun-2014 00:17
Chromium	U		0.00100	0.00500	mg/L	1	03-Jun-2014 00:17
Iron	U		0.0500	0.200	mg/L	1	03-Jun-2014 00:17
Lead	U		0.000700	0.00500	mg/L	1	03-Jun-2014 00:17
Manganese	U		0.00250	0.00500	mg/L	1	03-Jun-2014 00:17
Nickel	U		0.00100	0.00500	mg/L	1	03-Jun-2014 00:17
Potassium	U		0.0500	0.200	mg/L	1	03-Jun-2014 00:17
Selenium	U		0.00100	0.00500	mg/L	1	03-Jun-2014 00:17
Sodium	0.157	J	0.0500	0.200	mg/L	1	03-Jun-2014 00:17
Vanadium	U		0.000900	0.00500	mg/L	1	03-Jun-2014 00:17
CYANIDE BY SW9012B		Method:SW9012		Prep:SW9010C / 05-May-2014		Analyst: KKB	
Cyanide	0.00900	J	0.00500	0.0200	mg/L	1	06-May-2014 18:08
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015		Analyst: DNR			
Gasoline Range Organics	U		0.0100	0.0500	mg/L	1	07-May-2014 04:11
Surr: 4-Bromofluorobenzene	102			70-130	%REC	1	07-May-2014 04:11
MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 27-May-2014		Analyst: JBA	
Mercury	U		0.0000400	0.000200	mg/L	1	28-May-2014 12:01
TOTAL DISSOLVED SOLIDS BY SM2540C		Method:M2540C		Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	8.00	J	5.00	10.0	mg/L	1	07-May-2014 17:40
ANIONS BY E300.0		Method:E300		Analyst: KKB			
Chloride	U		0.200	0.500	mg/L	1	20-May-2014 00:36
Fluoride	U		0.0500	0.100	mg/L	1	20-May-2014 00:36
Sulfate	U		0.200	0.500	mg/L	1	20-May-2014 00:36
TPH DRO/ORO BY SW8015C		Method:SW8015M		Prep:SW3511 / 06-May-2014		Analyst: RPM	
TPH (Diesel Range)	U		0.021	0.052	mg/L	1	08-May-2014 16:40
Surr: 2-Fluorobiphenyl	124			60-135	%REC	1	08-May-2014 16:40
NITRATE/NITRITE BY E300.0		Method:E300		Analyst: JKP			
Nitrate/Nitrite (as N)	U		0.150	1.00	mg/L	5	22-May-2014 10:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: EB-19-0414-D
 Collection Date: 30-Apr-2014 12:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-56
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS BY SW6020A		Method:SW6020		Prep:SW3010A / 21-May-2014		Analyst: JCJ	
Arsenic	U		0.00100	0.00500	mg/L	1	03-Jun-2014 06:22
Barium	0.00112	J	0.000900	0.00500	mg/L	1	03-Jun-2014 06:22
Chromium	U		0.00100	0.00500	mg/L	1	03-Jun-2014 06:22
Iron	U		0.0780	0.200	mg/L	1	03-Jun-2014 06:22
Lead	U		0.000700	0.00500	mg/L	1	03-Jun-2014 06:22
Manganese	U		0.00250	0.00500	mg/L	1	03-Jun-2014 06:22
Nickel	U		0.00100	0.00500	mg/L	1	03-Jun-2014 06:22
Selenium	U		0.00100	0.00500	mg/L	1	03-Jun-2014 06:22
Vanadium	U		0.000900	0.00500	mg/L	1	03-Jun-2014 06:22
DISSOLVED MERCURY BY SW7470A		Method:SW7470		Prep:SW7470 / 27-May-2014		Analyst: JBA	
Mercury	U		0.0000420	0.000200	mg/L	1	27-May-2014 17:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 Project: Artesia Refinery Semi-Annual
 Sample ID: TB-032514-92
 Collection Date: 30-Apr-2014 15:00

ANALYTICAL REPORT

WorkOrder:HS14050073
 Lab ID:HS14050073-57
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260		Analyst: KKP			
1,1,1-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:26
1,1,2,2-Tetrachloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:26
1,1,2-Trichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:26
1,1-Dichloroethane	U		0.00040	0.0050	mg/L	1	07-May-2014 00:26
1,1-Dichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:26
1,2,4-Trimethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:26
1,2-Dibromoethane	U		0.00040	0.0050	mg/L	1	07-May-2014 00:26
1,2-Dichloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:26
1,2-Dichloropropane	U		0.00070	0.0050	mg/L	1	07-May-2014 00:26
1,3,5-Trimethylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:26
2-Butanone	U		0.0010	0.010	mg/L	1	07-May-2014 00:26
2-Hexanone	U		0.0010	0.010	mg/L	1	07-May-2014 00:26
4-Isopropyltoluene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:26
4-Methyl-2-pentanone	U		0.0010	0.010	mg/L	1	07-May-2014 00:26
Acetone	U		0.0020	0.010	mg/L	1	07-May-2014 00:26
Benzene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:26
Bromodichloromethane	U		0.00060	0.0050	mg/L	1	07-May-2014 00:26
Bromoform	U		0.00050	0.0050	mg/L	1	07-May-2014 00:26
Bromomethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:26
Carbon disulfide	U		0.00090	0.010	mg/L	1	07-May-2014 00:26
Carbon tetrachloride	U		0.00060	0.0050	mg/L	1	07-May-2014 00:26
Chlorobenzene	U		0.00040	0.0050	mg/L	1	07-May-2014 00:26
Chloroethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:26
Chloroform	U		0.00060	0.0050	mg/L	1	07-May-2014 00:26
Chloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:26
cis-1,2-Dichloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:26
cis-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:26
Dibromochloromethane	U		0.00050	0.0050	mg/L	1	07-May-2014 00:26
Ethylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:26
Isopropylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:26
m,p-Xylene	U		0.00060	0.010	mg/L	1	07-May-2014 00:26
Methyl tert-butyl ether	U		0.00060	0.0050	mg/L	1	07-May-2014 00:26
Methylene chloride	U		0.0010	0.010	mg/L	1	07-May-2014 00:26
Naphthalene	U		0.00070	0.0050	mg/L	1	07-May-2014 00:26
n-Butylbenzene	U		0.0010	0.0050	mg/L	1	07-May-2014 00:26
n-Propylbenzene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:26
o-Xylene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:26
sec-Butylbenzene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:26
Styrene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:26
Tetrachloroethene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:26
Toluene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:26
trans-1,2-Dichloroethene	U		0.00040	0.0050	mg/L	1	07-May-2014 00:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Sample ID: TB-032514-92
Collection Date: 30-Apr-2014 15:00

ANALYTICAL REPORT

WorkOrder:HS14050073
Lab ID:HS14050073-57
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: KKP	
trans-1,3-Dichloropropene	U		0.00060	0.0050	mg/L	1	07-May-2014 00:26
Trichloroethene	U		0.00050	0.0050	mg/L	1	07-May-2014 00:26
Vinyl chloride	U		0.00040	0.0020	mg/L	1	07-May-2014 00:26
Xylenes, Total	U		0.0015	0.015	mg/L	1	07-May-2014 00:26
Surr: 1,2-Dichloroethane-d4	112			70-125	%REC	1	07-May-2014 00:26
Surr: 4-Bromofluorobenzene	98.2			72-125	%REC	1	07-May-2014 00:26
Surr: Dibromofluoromethane	110			71-125	%REC	1	07-May-2014 00:26
Surr: Toluene-d8	99.5			75-125	%REC	1	07-May-2014 00:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
WorkOrder: HS14050073

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 81601	Test Name : TPH DRO/ORO BY SW8015C			Matrix: Water		
HS14050073-01	MW-104-0414	28 Apr 2014 11:00		05 May 2014 09:00	08 May 2014 00:44	1
HS14050073-03	Dup-13-0414	28 Apr 2014 00:00		05 May 2014 09:00	08 May 2014 01:10	1
HS14050073-05	MW-103-0414	28 Apr 2014 12:10		05 May 2014 09:00	08 May 2014 02:30	1
HS14050073-07	MW-101-0414	28 Apr 2014 12:35		05 May 2014 09:00	08 May 2014 02:57	1
HS14050073-09	MW-29-0414	28 Apr 2014 13:10		05 May 2014 09:00	08 May 2014 03:23	1
HS14050073-11	MW-66-0414	28 Apr 2014 13:45		05 May 2014 09:00	08 May 2014 03:50	1
HS14050073-13	MW-28-0414	28 Apr 2014 14:20		05 May 2014 09:00	08 May 2014 04:16	1
HS14050073-15	MW-107-0414	28 Apr 2014 15:00		05 May 2014 09:00	08 May 2014 04:43	1
HS14050073-17	EB-17-0414	28 Apr 2014 16:00		05 May 2014 09:00	08 May 2014 05:09	1
HS14050073-19	MW-61-0414	29 Apr 2014 08:15		05 May 2014 09:00	08 May 2014 05:36	1
HS14050073-21	MW-128-0414	29 Apr 2014 11:40		05 May 2014 09:00	08 May 2014 06:02	1
HS14050073-23	TEL-4-0414	29 Apr 2014 10:30		05 May 2014 09:00	12 May 2014 16:35	2
HS14050073-25	MW-49-0414	29 Apr 2014 11:05		05 May 2014 09:00	08 May 2014 06:55	1
HS14050073-27	TEL-1-0414	29 Apr 2014 09:00		05 May 2014 09:00	12 May 2014 17:01	5
Batch ID 81677	Test Name : TPH DRO/ORO BY SW8015C			Matrix: Water		
HS14050073-29	Dup-14-0414	29 Apr 2014 00:00		06 May 2014 07:34	12 May 2014 17:28	5
HS14050073-31	TEL-2-0414	29 Apr 2014 09:30		06 May 2014 07:34	12 May 2014 17:54	10
HS14050073-33	TEL-3-0414	29 Apr 2014 10:05		06 May 2014 07:34	12 May 2014 18:21	2
HS14050073-35	MW-114-0414	29 Apr 2014 12:35		06 May 2014 07:34	08 May 2014 11:20	1
HS14050073-37	MW-115-0414	29 Apr 2014 13:20		06 May 2014 07:34	08 May 2014 11:47	1
HS14050073-39	MW-116-0414	29 Apr 2014 14:00		06 May 2014 07:34	08 May 2014 12:13	1
HS14050073-41	MW-125-0414	29 Apr 2014 14:35		06 May 2014 07:34	08 May 2014 13:33	1
HS14050073-43	EB-18-0414	29 Apr 2014 15:20		06 May 2014 07:34	08 May 2014 14:00	1
HS14050073-45	MW-117-0414	30 Apr 2014 09:20		06 May 2014 07:34	08 May 2014 14:26	1
HS14050073-47	MW-118-0414	30 Apr 2014 10:00		06 May 2014 07:34	08 May 2014 14:53	1
HS14050073-49	MW-119-0414	30 Apr 2014 10:40		06 May 2014 07:34	08 May 2014 15:20	1
HS14050073-51	DUP-15-0414	30 Apr 2014 00:00		06 May 2014 07:34	08 May 2014 15:46	1
HS14050073-53	MW-46R-0414	30 Apr 2014 08:45		06 May 2014 07:34	08 May 2014 16:13	1
HS14050073-55	EB-19-0414	30 Apr 2014 12:00		06 May 2014 07:34	08 May 2014 16:40	1

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
WorkOrder: HS14050073

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 82024	Test Name : DISSOLVED METALS BY SW6020A			Matrix: Water		
HS14050073-02	MW-104-0414-D	28 Apr 2014 11:00		16 May 2014 11:15	28 May 2014 18:55	1
HS14050073-02	MW-104-0414-D	28 Apr 2014 11:00		16 May 2014 11:15	27 May 2014 23:13	1
HS14050073-04	Dup-13-0414-D	28 Apr 2014 00:00		16 May 2014 11:15	28 May 2014 18:59	1
HS14050073-04	Dup-13-0414-D	28 Apr 2014 00:00		16 May 2014 11:15	27 May 2014 23:18	1
HS14050073-06	MW-103-0414-D	28 Apr 2014 12:10		16 May 2014 11:15	28 May 2014 19:03	10
HS14050073-06	MW-103-0414-D	28 Apr 2014 12:10		16 May 2014 11:15	27 May 2014 23:22	1
HS14050073-08	MW-101-0414-D	28 Apr 2014 12:35		16 May 2014 11:15	28 May 2014 19:08	1
HS14050073-08	MW-101-0414-D	28 Apr 2014 12:35		16 May 2014 11:15	27 May 2014 23:27	1
HS14050073-10	MW-29-0414-D	28 Apr 2014 13:10		16 May 2014 11:15	28 May 2014 19:12	1
HS14050073-10	MW-29-0414-D	28 Apr 2014 13:10		16 May 2014 11:15	27 May 2014 23:32	1
HS14050073-12	MW-66-0414-D	28 Apr 2014 13:45		16 May 2014 11:15	28 May 2014 19:16	10
HS14050073-12	MW-66-0414-D	28 Apr 2014 13:45		16 May 2014 11:15	27 May 2014 23:36	1
Batch ID 82074	Test Name : DISSOLVED METALS BY SW6020A			Matrix: Water		
HS14050073-14	MW-28-0414-D	28 Apr 2014 14:20		19 May 2014 11:09	29 May 2014 01:02	1
HS14050073-16	MW-107-0414-D	28 Apr 2014 15:00		19 May 2014 11:09	31 May 2014 21:17	10
HS14050073-16	MW-107-0414-D	28 Apr 2014 15:00		19 May 2014 11:09	29 May 2014 01:07	1
HS14050073-18	EB-17-0414-D	28 Apr 2014 16:00		19 May 2014 11:09	29 May 2014 01:12	1
HS14050073-20	MW-61-0414-D	29 Apr 2014 08:15		19 May 2014 11:09	29 May 2014 01:17	1
HS14050073-22	MW-128-0414-D	29 Apr 2014 11:40		19 May 2014 11:09	31 May 2014 21:22	10
HS14050073-22	MW-128-0414-D	29 Apr 2014 11:40		19 May 2014 11:09	29 May 2014 01:22	1
HS14050073-24	TEL-4-0414-D	29 Apr 2014 10:30		19 May 2014 11:09	31 May 2014 21:26	1
HS14050073-26	MW-49-0414-D	29 Apr 2014 11:05		19 May 2014 11:09	31 May 2014 21:31	1
HS14050073-28	TEL-1-0414-D	29 Apr 2014 09:00		19 May 2014 11:09	31 May 2014 21:35	1
HS14050073-30	Dup-14-0414-D	29 Apr 2014 00:00		19 May 2014 11:09	31 May 2014 21:40	1
HS14050073-32	TEL-2-0414-D	29 Apr 2014 09:30		19 May 2014 11:09	31 May 2014 00:34	1
HS14050073-34	TEL-3-0414-D	29 Apr 2014 10:05		19 May 2014 11:09	31 May 2014 00:38	1
HS14050073-36	MW-114-0414-D	29 Apr 2014 12:35		19 May 2014 11:09	31 May 2014 00:43	1
HS14050073-38	MW-115-0414-D	29 Apr 2014 13:20		19 May 2014 11:09	29 May 2014 03:31	1
HS14050073-40	MW-116-0414-D	29 Apr 2014 14:00		19 May 2014 11:09	29 May 2014 03:37	1
HS14050073-42	MW-125-0414-D	29 Apr 2014 14:35		19 May 2014 11:09	29 May 2014 03:42	1
HS14050073-44	EB-18-0414-D	29 Apr 2014 15:20		19 May 2014 11:09	29 May 2014 03:47	1
HS14050073-46	MW-117-0414-D	30 Apr 2014 09:20		19 May 2014 11:09	31 May 2014 00:48	1
HS14050073-48	MW-118-0414-D	30 Apr 2014 10:00		19 May 2014 11:09	31 May 2014 00:53	1
Batch ID 82119	Test Name : MERCURY BY SW7470A			Matrix: Water		
HS14050073-01	MW-104-0414	28 Apr 2014 11:00		20 May 2014 07:03	20 May 2014 22:55	1
HS14050073-11	MW-66-0414	28 Apr 2014 13:45		20 May 2014 07:03	20 May 2014 23:00	1
HS14050073-13	MW-28-0414	28 Apr 2014 14:20		20 May 2014 07:03	20 May 2014 23:02	1

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Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 82140	Test Name : ICP-MS METALS BY SW6020A			Matrix: Water		
HS14050073-01	MW-104-0414	28 Apr 2014 11:00		20 May 2014 11:15	27 May 2014 19:08	10
HS14050073-01	MW-104-0414	28 Apr 2014 11:00		20 May 2014 11:15	23 May 2014 20:42	1
HS14050073-05	MW-103-0414	28 Apr 2014 12:10		20 May 2014 11:15	27 May 2014 19:11	100
HS14050073-05	MW-103-0414	28 Apr 2014 12:10		20 May 2014 11:15	23 May 2014 20:45	1
HS14050073-07	MW-101-0414	28 Apr 2014 12:35		20 May 2014 11:15	27 May 2014 19:13	10
HS14050073-07	MW-101-0414	28 Apr 2014 12:35		20 May 2014 11:15	23 May 2014 20:47	1
HS14050073-09	MW-29-0414	28 Apr 2014 13:10		20 May 2014 11:15	27 May 2014 19:16	10
HS14050073-09	MW-29-0414	28 Apr 2014 13:10		20 May 2014 11:15	23 May 2014 20:55	1
HS14050073-11	MW-66-0414	28 Apr 2014 13:45		20 May 2014 11:15	27 May 2014 19:18	10
HS14050073-11	MW-66-0414	28 Apr 2014 13:45		20 May 2014 11:15	23 May 2014 20:58	1
HS14050073-13	MW-28-0414	28 Apr 2014 14:20		20 May 2014 11:15	23 May 2014 21:00	1
HS14050073-15	MW-107-0414	28 Apr 2014 15:00		20 May 2014 11:15	27 May 2014 19:21	10
HS14050073-15	MW-107-0414	28 Apr 2014 15:00		20 May 2014 11:15	23 May 2014 21:03	1
HS14050073-17	EB-17-0414	28 Apr 2014 16:00		20 May 2014 11:15	23 May 2014 21:05	1
HS14050073-19	MW-61-0414	29 Apr 2014 08:15		20 May 2014 11:15	27 May 2014 19:23	10
HS14050073-19	MW-61-0414	29 Apr 2014 08:15		20 May 2014 11:15	23 May 2014 21:08	1
HS14050073-21	MW-128-0414	29 Apr 2014 11:40		20 May 2014 11:15	27 May 2014 19:26	10
HS14050073-21	MW-128-0414	29 Apr 2014 11:40		20 May 2014 11:15	23 May 2014 21:10	1
HS14050073-23	TEL-4-0414	29 Apr 2014 10:30		20 May 2014 11:15	27 May 2014 19:28	10
HS14050073-23	TEL-4-0414	29 Apr 2014 10:30		20 May 2014 11:15	23 May 2014 21:13	1
HS14050073-25	MW-49-0414	29 Apr 2014 11:05		20 May 2014 11:15	27 May 2014 19:35	10
HS14050073-25	MW-49-0414	29 Apr 2014 11:05		20 May 2014 11:15	23 May 2014 21:16	1
Batch ID 82186	Test Name : DISSOLVED METALS BY SW6020A			Matrix: Water		
HS14050073-50	MW-119-0414-D	30 Apr 2014 10:40		21 May 2014 10:30	03 Jun 2014 06:06	1
HS14050073-52	DUP-15-0414-D	30 Apr 2014 00:00		21 May 2014 10:30	03 Jun 2014 06:11	1
HS14050073-54	MW-46R-0414-D	30 Apr 2014 08:45		21 May 2014 10:30	03 Jun 2014 06:17	1
HS14050073-56	EB-19-0414-D	30 Apr 2014 12:00		21 May 2014 10:30	03 Jun 2014 06:22	1

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Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 82188	Test Name : ICP-MS METALS BY SW6020A			Matrix: Water		
HS14050073-03	Dup-13-0414	28 Apr 2014 00:00		21 May 2014 11:11	30 May 2014 01:40	1
HS14050073-03	Dup-13-0414	28 Apr 2014 00:00		21 May 2014 11:11	02 Jun 2014 22:55	10
HS14050073-27	TEL-1-0414	29 Apr 2014 09:00		21 May 2014 11:11	30 May 2014 01:44	1
HS14050073-27	TEL-1-0414	29 Apr 2014 09:00		21 May 2014 11:11	02 Jun 2014 22:59	10
HS14050073-29	Dup-14-0414	29 Apr 2014 00:00		21 May 2014 11:11	30 May 2014 01:48	1
HS14050073-29	Dup-14-0414	29 Apr 2014 00:00		21 May 2014 11:11	02 Jun 2014 23:04	10
HS14050073-31	TEL-2-0414	29 Apr 2014 09:30		21 May 2014 11:11	30 May 2014 01:53	1
HS14050073-31	TEL-2-0414	29 Apr 2014 09:30		21 May 2014 11:11	02 Jun 2014 23:09	10
HS14050073-33	TEL-3-0414	29 Apr 2014 10:05		21 May 2014 11:11	03 Jun 2014 00:51	1
HS14050073-33	TEL-3-0414	29 Apr 2014 10:05		21 May 2014 11:11	02 Jun 2014 23:14	10
HS14050073-35	MW-114-0414	29 Apr 2014 12:35		21 May 2014 11:11	03 Jun 2014 00:56	1
HS14050073-35	MW-114-0414	29 Apr 2014 12:35		21 May 2014 11:11	02 Jun 2014 23:19	10
HS14050073-37	MW-115-0414	29 Apr 2014 13:20		21 May 2014 11:11	03 Jun 2014 01:00	1
HS14050073-37	MW-115-0414	29 Apr 2014 13:20		21 May 2014 11:11	02 Jun 2014 23:24	10
HS14050073-39	MW-116-0414	29 Apr 2014 14:00		21 May 2014 11:11	03 Jun 2014 01:05	1
HS14050073-39	MW-116-0414	29 Apr 2014 14:00		21 May 2014 11:11	02 Jun 2014 23:38	10
HS14050073-41	MW-125-0414	29 Apr 2014 14:35		21 May 2014 11:11	03 Jun 2014 01:10	1
HS14050073-41	MW-125-0414	29 Apr 2014 14:35		21 May 2014 11:11	02 Jun 2014 23:43	10
HS14050073-43	EB-18-0414	29 Apr 2014 15:20		21 May 2014 11:11	02 Jun 2014 23:48	1
HS14050073-45	MW-117-0414	30 Apr 2014 09:20		21 May 2014 11:11	03 Jun 2014 01:15	1
HS14050073-45	MW-117-0414	30 Apr 2014 09:20		21 May 2014 11:11	02 Jun 2014 23:53	10
HS14050073-47	MW-118-0414	30 Apr 2014 10:00		21 May 2014 11:11	03 Jun 2014 02:51	1
HS14050073-47	MW-118-0414	30 Apr 2014 10:00		21 May 2014 11:11	02 Jun 2014 23:58	10
HS14050073-49	MW-119-0414	30 Apr 2014 10:40		21 May 2014 11:11	03 Jun 2014 02:56	1
HS14050073-49	MW-119-0414	30 Apr 2014 10:40		21 May 2014 11:11	03 Jun 2014 00:02	10
HS14050073-51	DUP-15-0414	30 Apr 2014 00:00		21 May 2014 11:11	03 Jun 2014 03:01	1
HS14050073-51	DUP-15-0414	30 Apr 2014 00:00		21 May 2014 11:11	03 Jun 2014 00:07	10
HS14050073-53	MW-46R-0414	30 Apr 2014 08:45		21 May 2014 11:11	03 Jun 2014 03:06	1
HS14050073-53	MW-46R-0414	30 Apr 2014 08:45		21 May 2014 11:11	03 Jun 2014 00:12	10
HS14050073-55	EB-19-0414	30 Apr 2014 12:00		21 May 2014 11:11	03 Jun 2014 00:17	1
Batch ID 82340	Test Name : DISSOLVED MERCURY BY SW7470A			Matrix: Water		
HS14050073-12	MW-66-0414-D	28 Apr 2014 13:45		27 May 2014 13:39	27 May 2014 17:12	1
HS14050073-14	MW-28-0414-D	28 Apr 2014 14:20		27 May 2014 13:39	27 May 2014 17:13	1
HS14050073-26	MW-49-0414-D	29 Apr 2014 11:05		27 May 2014 13:39	27 May 2014 17:15	1
HS14050073-44	EB-18-0414-D	29 Apr 2014 15:20		27 May 2014 13:39	27 May 2014 17:17	1
HS14050073-56	EB-19-0414-D	30 Apr 2014 12:00		27 May 2014 13:39	27 May 2014 17:22	1

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Batch ID 82369 Test Name : MERCURY BY SW7470A Matrix: Water						
HS14050073-17	EB-17-0414	28 Apr 2014 16:00		27 May 2014 09:10	28 May 2014 11:53	1
HS14050073-25	MW-49-0414	29 Apr 2014 11:05		27 May 2014 09:10	28 May 2014 11:58	1
HS14050073-43	EB-18-0414	29 Apr 2014 15:20		27 May 2014 09:10	28 May 2014 12:00	1
HS14050073-55	EB-19-0414	30 Apr 2014 12:00		27 May 2014 09:10	28 May 2014 12:01	1
Batch ID R233105 Test Name : GASOLINE RANGE ORGANICS BY SW8015C Matrix: Water						
HS14050073-05	MW-103-0414	28 Apr 2014 12:10			05 May 2014 17:22	1
HS14050073-07	MW-101-0414	28 Apr 2014 12:35			05 May 2014 18:17	1
HS14050073-09	MW-29-0414	28 Apr 2014 13:10			05 May 2014 18:35	1
HS14050073-13	MW-28-0414	28 Apr 2014 14:20			05 May 2014 18:53	1
HS14050073-15	MW-107-0414	28 Apr 2014 15:00			05 May 2014 20:09	1
HS14050073-17	EB-17-0414	28 Apr 2014 16:00			05 May 2014 20:45	1
HS14050073-19	MW-61-0414	29 Apr 2014 08:15			05 May 2014 21:03	1
Batch ID R233215 Test Name : GASOLINE RANGE ORGANICS BY SW8015C Matrix: Water						
HS14050073-11	MW-66-0414	28 Apr 2014 13:45			06 May 2014 14:42	1
HS14050073-21	MW-128-0414	29 Apr 2014 11:40			06 May 2014 15:45	1
HS14050073-23	TEL-4-0414	29 Apr 2014 10:30			06 May 2014 16:02	1
HS14050073-25	MW-49-0414	29 Apr 2014 11:05			06 May 2014 16:33	1
HS14050073-27	TEL-1-0414	29 Apr 2014 09:00			06 May 2014 16:49	1
HS14050073-29	Dup-14-0414	29 Apr 2014 00:00			06 May 2014 17:05	1
HS14050073-31	TEL-2-0414	29 Apr 2014 09:30			06 May 2014 17:21	1
HS14050073-33	TEL-3-0414	29 Apr 2014 10:05			06 May 2014 17:37	1
HS14050073-35	MW-114-0414	29 Apr 2014 12:35			06 May 2014 17:53	1
HS14050073-37	MW-115-0414	29 Apr 2014 13:20			06 May 2014 18:09	1
HS14050073-39	MW-116-0414	29 Apr 2014 14:00			06 May 2014 18:25	1
HS14050073-41	MW-125-0414	29 Apr 2014 14:35			06 May 2014 14:58	1
HS14050073-43	EB-18-0414	29 Apr 2014 15:20			06 May 2014 18:40	1

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Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R233224 Test Name : VOLATILES - SW8260C Matrix: Water						
HS14050073-01	MW-104-0414	28 Apr 2014 11:00			06 May 2014 03:31	1
HS14050073-03	Dup-13-0414	28 Apr 2014 00:00			06 May 2014 03:55	1
HS14050073-05	MW-103-0414	28 Apr 2014 12:10			06 May 2014 01:55	10
HS14050073-05	MW-103-0414	28 Apr 2014 12:10			06 May 2014 01:30	1
HS14050073-07	MW-101-0414	28 Apr 2014 12:35			06 May 2014 01:06	10
HS14050073-07	MW-101-0414	28 Apr 2014 12:35			05 May 2014 23:54	1
HS14050073-09	MW-29-0414	28 Apr 2014 13:10			06 May 2014 04:18	1
HS14050073-11	MW-66-0414	28 Apr 2014 13:45			06 May 2014 02:43	25
HS14050073-11	MW-66-0414	28 Apr 2014 13:45			06 May 2014 02:19	1
HS14050073-17	EB-17-0414	28 Apr 2014 16:00			06 May 2014 03:07	1
HS14050073-27	TEL-1-0414	29 Apr 2014 09:00			06 May 2014 04:42	1
HS14050073-29	Dup-14-0414	29 Apr 2014 00:00			06 May 2014 05:07	1
HS14050073-33	TEL-3-0414	29 Apr 2014 10:05			06 May 2014 05:31	1
Batch ID R233228 Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C Matrix: Water						
HS14050073-01	MW-104-0414	28 Apr 2014 11:00			05 May 2014 16:40	1
HS14050073-03	Dup-13-0414	28 Apr 2014 00:00			05 May 2014 16:40	1
HS14050073-05	MW-103-0414	28 Apr 2014 12:10			05 May 2014 16:40	1
HS14050073-07	MW-101-0414	28 Apr 2014 12:35			05 May 2014 16:40	1
HS14050073-09	MW-29-0414	28 Apr 2014 13:10			05 May 2014 16:40	1
HS14050073-11	MW-66-0414	28 Apr 2014 13:45			05 May 2014 16:40	1
HS14050073-13	MW-28-0414	28 Apr 2014 14:20			05 May 2014 16:40	1
HS14050073-15	MW-107-0414	28 Apr 2014 15:00			05 May 2014 16:40	1
HS14050073-17	EB-17-0414	28 Apr 2014 16:00			05 May 2014 16:40	1
Batch ID R233243 Test Name : GASOLINE RANGE ORGANICS BY SW8015C Matrix: Water						
HS14050073-45	MW-117-0414	30 Apr 2014 09:20			07 May 2014 03:08	1
HS14050073-47	MW-118-0414	30 Apr 2014 10:00			07 May 2014 03:24	1
HS14050073-49	MW-119-0414	30 Apr 2014 10:40			07 May 2014 03:40	1
HS14050073-51	DUP-15-0414	30 Apr 2014 00:00			07 May 2014 03:56	1
HS14050073-55	EB-19-0414	30 Apr 2014 12:00			07 May 2014 04:11	1

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Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R233275	Test Name : VOLATILES - SW8260C			Matrix: Water		
HS14050073-21	MW-128-0414	29 Apr 2014 11:40			07 May 2014 06:02	10
HS14050073-21	MW-128-0414	29 Apr 2014 11:40			07 May 2014 05:38	1
HS14050073-23	TEL-4-0414	29 Apr 2014 10:30			07 May 2014 06:51	10
HS14050073-23	TEL-4-0414	29 Apr 2014 10:30			07 May 2014 06:27	1
HS14050073-25	MW-49-0414	29 Apr 2014 11:05			07 May 2014 07:39	5
HS14050073-25	MW-49-0414	29 Apr 2014 11:05			07 May 2014 07:15	1
HS14050073-31	TEL-2-0414	29 Apr 2014 09:30			07 May 2014 05:14	10
HS14050073-31	TEL-2-0414	29 Apr 2014 09:30			07 May 2014 04:03	1
HS14050073-35	MW-114-0414	29 Apr 2014 12:35			07 May 2014 00:50	1
HS14050073-37	MW-115-0414	29 Apr 2014 13:20			07 May 2014 01:15	1
HS14050073-39	MW-116-0414	29 Apr 2014 14:00			07 May 2014 01:39	1
HS14050073-41	MW-125-0414	29 Apr 2014 14:35			07 May 2014 02:02	1
HS14050073-43	EB-18-0414	29 Apr 2014 15:20			06 May 2014 23:38	1
HS14050073-45	MW-117-0414	30 Apr 2014 09:20			07 May 2014 02:26	1
HS14050073-47	MW-118-0414	30 Apr 2014 10:00			07 May 2014 02:50	1
HS14050073-49	MW-119-0414	30 Apr 2014 10:40			07 May 2014 03:14	1
HS14050073-51	DUP-15-0414	30 Apr 2014 00:00			07 May 2014 03:39	1
HS14050073-55	EB-19-0414	30 Apr 2014 12:00			07 May 2014 00:02	1
HS14050073-57	TB-032514-92	30 Apr 2014 15:00			07 May 2014 00:26	1
Batch ID R233285	Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C			Matrix: Water		
HS14050073-19	MW-61-0414	29 Apr 2014 08:15			06 May 2014 16:40	1
HS14050073-21	MW-128-0414	29 Apr 2014 11:40			06 May 2014 16:40	1
HS14050073-23	TEL-4-0414	29 Apr 2014 10:30			06 May 2014 16:40	1
HS14050073-25	MW-49-0414	29 Apr 2014 11:05			06 May 2014 16:40	1
HS14050073-27	TEL-1-0414	29 Apr 2014 09:00			06 May 2014 16:40	1
HS14050073-29	Dup-14-0414	29 Apr 2014 00:00			06 May 2014 16:40	1
HS14050073-31	TEL-2-0414	29 Apr 2014 09:30			06 May 2014 16:40	1
HS14050073-33	TEL-3-0414	29 Apr 2014 10:05			06 May 2014 16:40	1
HS14050073-35	MW-114-0414	29 Apr 2014 12:35			06 May 2014 16:40	1
HS14050073-37	MW-115-0414	29 Apr 2014 13:20			06 May 2014 16:40	1
HS14050073-39	MW-116-0414	29 Apr 2014 14:00			06 May 2014 16:40	1
HS14050073-41	MW-125-0414	29 Apr 2014 14:35			06 May 2014 16:40	1
HS14050073-43	EB-18-0414	29 Apr 2014 15:20			06 May 2014 16:40	1

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Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R233298 Test Name : CYANIDE BY SW9012B Matrix: Water						
HS14050073-11	MW-66-0414	28 Apr 2014 13:45		05 May 2014 03:09	06 May 2014 18:08	1
HS14050073-13	MW-28-0414	28 Apr 2014 14:20		05 May 2014 03:09	06 May 2014 18:08	10
HS14050073-17	EB-17-0414	28 Apr 2014 16:00		05 May 2014 03:09	06 May 2014 18:08	1
HS14050073-25	MW-49-0414	29 Apr 2014 11:05		05 May 2014 03:09	06 May 2014 18:08	1
HS14050073-43	EB-18-0414	29 Apr 2014 15:20		05 May 2014 03:09	06 May 2014 18:08	1
HS14050073-55	EB-19-0414	30 Apr 2014 12:00		05 May 2014 03:09	06 May 2014 18:08	1
Batch ID R233326 Test Name : GASOLINE RANGE ORGANICS BY SW8015C Matrix: Water						
HS14050073-01	MW-104-0414	28 Apr 2014 11:00			07 May 2014 21:24	1
HS14050073-03	Dup-13-0414	28 Apr 2014 00:00			07 May 2014 21:40	1
Batch ID R233358 Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C Matrix: Water						
HS14050073-45	MW-117-0414	30 Apr 2014 09:20			07 May 2014 17:40	1
HS14050073-47	MW-118-0414	30 Apr 2014 10:00			07 May 2014 17:40	1
HS14050073-49	MW-119-0414	30 Apr 2014 10:40			07 May 2014 17:40	1
HS14050073-51	DUP-15-0414	30 Apr 2014 00:00			07 May 2014 17:40	1
HS14050073-53	MW-46R-0414	30 Apr 2014 08:45			07 May 2014 17:40	1
HS14050073-55	EB-19-0414	30 Apr 2014 12:00			07 May 2014 17:40	1
Batch ID R233364 Test Name : VOLATILES - SW8260C Matrix: Water						
HS14050073-13	MW-28-0414	28 Apr 2014 14:20			08 May 2014 19:03	25
HS14050073-13	MW-28-0414	28 Apr 2014 14:20			08 May 2014 18:39	1
HS14050073-53	MW-46R-0414	30 Apr 2014 08:45			08 May 2014 18:15	1
Batch ID R233368 Test Name : VOLATILES - SW8260C Matrix: Water						
HS14050073-15	MW-107-0414	28 Apr 2014 15:00			08 May 2014 22:28	100
HS14050073-15	MW-107-0414	28 Apr 2014 15:00			08 May 2014 21:13	10
HS14050073-19	MW-61-0414	29 Apr 2014 08:15			08 May 2014 20:48	5
HS14050073-19	MW-61-0414	29 Apr 2014 08:15			08 May 2014 20:22	25

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
WorkOrder: HS14050073

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R233976	Test Name : ANIONS BY E300.0			Matrix: Water		
HS14050073-31	TEL-2-0414	29 Apr 2014 09:30			20 May 2014 01:48	1
HS14050073-31	TEL-2-0414	29 Apr 2014 09:30			19 May 2014 18:58	50
HS14050073-33	TEL-3-0414	29 Apr 2014 10:05			20 May 2014 02:13	1
HS14050073-33	TEL-3-0414	29 Apr 2014 10:05			19 May 2014 19:22	50
HS14050073-35	MW-114-0414	29 Apr 2014 12:35			20 May 2014 03:25	1
HS14050073-35	MW-114-0414	29 Apr 2014 12:35			19 May 2014 19:46	50
HS14050073-37	MW-115-0414	29 Apr 2014 13:20			20 May 2014 03:49	1
HS14050073-37	MW-115-0414	29 Apr 2014 13:20			19 May 2014 20:11	50
HS14050073-39	MW-116-0414	29 Apr 2014 14:00			20 May 2014 04:13	1
HS14050073-39	MW-116-0414	29 Apr 2014 14:00			19 May 2014 20:35	50
HS14050073-41	MW-125-0414	29 Apr 2014 14:35			19 May 2014 20:59	50
HS14050073-45	MW-117-0414	30 Apr 2014 09:20			19 May 2014 22:35	50
HS14050073-47	MW-118-0414	30 Apr 2014 10:00			19 May 2014 23:00	50
HS14050073-49	MW-119-0414	30 Apr 2014 10:40			19 May 2014 23:24	50
HS14050073-51	DUP-15-0414	30 Apr 2014 00:00			19 May 2014 23:48	50
HS14050073-53	MW-46R-0414	30 Apr 2014 08:45			20 May 2014 00:12	50
HS14050073-55	EB-19-0414	30 Apr 2014 12:00			20 May 2014 00:36	1
Batch ID R233982	Test Name : ANIONS BY E300.0			Matrix: Water		
HS14050073-01	MW-104-0414	28 Apr 2014 11:00			19 May 2014 23:06	50
HS14050073-03	Dup-13-0414	28 Apr 2014 00:00			19 May 2014 23:32	50
HS14050073-05	MW-103-0414	28 Apr 2014 12:10			19 May 2014 23:58	50
HS14050073-07	MW-101-0414	28 Apr 2014 12:35			20 May 2014 00:24	50
HS14050073-09	MW-29-0414	28 Apr 2014 13:10			20 May 2014 00:50	50
HS14050073-11	MW-66-0414	28 Apr 2014 13:45			20 May 2014 01:16	50
HS14050073-13	MW-28-0414	28 Apr 2014 14:20			20 May 2014 01:41	50
HS14050073-15	MW-107-0414	28 Apr 2014 15:00			20 May 2014 02:59	50
HS14050073-19	MW-61-0414	29 Apr 2014 08:15			20 May 2014 03:50	50
HS14050073-21	MW-128-0414	29 Apr 2014 11:40			20 May 2014 04:16	50
HS14050073-23	TEL-4-0414	29 Apr 2014 10:30			20 May 2014 04:42	50
HS14050073-25	MW-49-0414	29 Apr 2014 11:05			20 May 2014 05:08	50
HS14050073-27	TEL-1-0414	29 Apr 2014 09:00			20 May 2014 05:34	50
HS14050073-29	Dup-14-0414	29 Apr 2014 00:00			20 May 2014 05:59	50

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
WorkOrder: HS14050073

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R233989	Test Name : ANIONS BY E300.0			Matrix: Water		
HS14050073-41	MW-125-0414	29 Apr 2014 14:35			20 May 2014 06:14	1
HS14050073-43	EB-18-0414	29 Apr 2014 15:20			20 May 2014 06:38	1
HS14050073-45	MW-117-0414	30 Apr 2014 09:20			20 May 2014 07:02	1
HS14050073-47	MW-118-0414	30 Apr 2014 10:00			20 May 2014 07:26	1
HS14050073-49	MW-119-0414	30 Apr 2014 10:40			20 May 2014 07:50	1
HS14050073-51	DUP-15-0414	30 Apr 2014 00:00			20 May 2014 08:15	1
HS14050073-53	MW-46R-0414	30 Apr 2014 08:45			20 May 2014 08:39	1
Batch ID R234131	Test Name : ANIONS BY E300.0			Matrix: Water		
HS14050073-01	MW-104-0414	28 Apr 2014 11:00			21 May 2014 05:58	1
HS14050073-03	Dup-13-0414	28 Apr 2014 00:00			21 May 2014 06:22	1
HS14050073-05	MW-103-0414	28 Apr 2014 12:10			21 May 2014 06:46	1
HS14050073-07	MW-101-0414	28 Apr 2014 12:35			21 May 2014 07:10	1
HS14050073-09	MW-29-0414	28 Apr 2014 13:10			21 May 2014 07:34	1
HS14050073-11	MW-66-0414	28 Apr 2014 13:45			21 May 2014 07:58	1
HS14050073-13	MW-28-0414	28 Apr 2014 14:20			21 May 2014 08:23	1
HS14050073-15	MW-107-0414	28 Apr 2014 15:00			21 May 2014 09:35	1
HS14050073-17	EB-17-0414	28 Apr 2014 16:00			21 May 2014 09:59	1
HS14050073-19	MW-61-0414	29 Apr 2014 08:15			21 May 2014 10:23	1
HS14050073-21	MW-128-0414	29 Apr 2014 11:40			21 May 2014 10:47	1
HS14050073-23	TEL-4-0414	29 Apr 2014 10:30			21 May 2014 11:12	1
HS14050073-25	MW-49-0414	29 Apr 2014 11:05			21 May 2014 11:36	1
HS14050073-27	TEL-1-0414	29 Apr 2014 09:00			21 May 2014 12:00	1
HS14050073-29	Dup-14-0414	29 Apr 2014 00:00			21 May 2014 12:24	1

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
WorkOrder: HS14050073

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R234223	Test Name : NITRATE/NITRITE BY E300.0			Matrix: Water		
HS14050073-01	MW-104-0414	28 Apr 2014 11:00			21 May 2014 18:34	5
HS14050073-03	Dup-13-0414	28 Apr 2014 00:00			21 May 2014 18:49	5
HS14050073-05	MW-103-0414	28 Apr 2014 12:10			21 May 2014 19:03	5
HS14050073-07	MW-101-0414	28 Apr 2014 12:35			21 May 2014 19:18	5
HS14050073-09	MW-29-0414	28 Apr 2014 13:10			21 May 2014 19:33	5
HS14050073-11	MW-66-0414	28 Apr 2014 13:45			21 May 2014 19:47	5
HS14050073-13	MW-28-0414	28 Apr 2014 14:20			21 May 2014 20:02	5
HS14050073-15	MW-107-0414	28 Apr 2014 15:00			21 May 2014 20:45	5
HS14050073-17	EB-17-0414	28 Apr 2014 16:00			21 May 2014 21:00	5
HS14050073-19	MW-61-0414	29 Apr 2014 08:15			21 May 2014 21:14	5
HS14050073-21	MW-128-0414	29 Apr 2014 11:40			21 May 2014 21:29	5
HS14050073-23	TEL-4-0414	29 Apr 2014 10:30			21 May 2014 21:43	5
HS14050073-25	MW-49-0414	29 Apr 2014 11:05			21 May 2014 21:58	5
HS14050073-27	TEL-1-0414	29 Apr 2014 09:00			21 May 2014 22:13	5
HS14050073-29	Dup-14-0414	29 Apr 2014 00:00			21 May 2014 22:27	5
HS14050073-31	TEL-2-0414	29 Apr 2014 09:30			21 May 2014 22:42	5
HS14050073-33	TEL-3-0414	29 Apr 2014 10:05			21 May 2014 22:56	5
HS14050073-35	MW-114-0414	29 Apr 2014 12:35			21 May 2014 23:40	5
HS14050073-37	MW-115-0414	29 Apr 2014 13:20			21 May 2014 23:54	5
HS14050073-39	MW-116-0414	29 Apr 2014 14:00			22 May 2014 00:09	5
Batch ID R234293	Test Name : NITRATE/NITRITE BY E300.0			Matrix: Water		
HS14050073-41	MW-125-0414	29 Apr 2014 14:35			22 May 2014 06:56	5
HS14050073-43	EB-18-0414	29 Apr 2014 15:20			22 May 2014 07:20	5
HS14050073-45	MW-117-0414	30 Apr 2014 09:20			22 May 2014 07:44	5
HS14050073-47	MW-118-0414	30 Apr 2014 10:00			22 May 2014 08:08	5
HS14050073-49	MW-119-0414	30 Apr 2014 10:40			22 May 2014 08:33	5
HS14050073-51	DUP-15-0414	30 Apr 2014 00:00			22 May 2014 08:57	5
HS14050073-53	MW-46R-0414	30 Apr 2014 08:45			22 May 2014 09:21	5
HS14050073-55	EB-19-0414	30 Apr 2014 12:00			22 May 2014 10:33	5

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 81601		Instrument: FID-16		Method: SW8015M	
MBLK	Sample ID: LBLKW-140505	Units: mg/L		Analysis Date: 07-May-2014 23:24	
Client ID:	Run ID: FID-16_234198	SeqNo: 2846723		PrepDate: 05-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

TPH (Diesel Range) U 0.050

Surr: 2-Fluorobiphenyl 0.08049 0.0050 0.1212 0 66.4 60 - 135

LCS	Sample ID: LLC SW-140505	Units: mg/L		Analysis Date: 07-May-2014 23:51	
Client ID:	Run ID: FID-16_234198	SeqNo: 2846724		PrepDate: 05-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

TPH (Diesel Range) 0.5561 0.050 0.6061 0 91.8 70 - 130

Surr: 2-Fluorobiphenyl 0.08819 0.0050 0.1212 0 72.8 60 - 135

LCSD	Sample ID: LLCSDW-140505	Units: mg/L		Analysis Date: 08-May-2014 00:17	
Client ID:	Run ID: FID-16_234198	SeqNo: 2846725		PrepDate: 05-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

TPH (Diesel Range) 0.5933 0.050 0.6061 0 97.9 70 - 130 0.5561 6.47 20

Surr: 2-Fluorobiphenyl 0.09632 0.0050 0.1212 0 79.5 60 - 135 0.08819 8.81 20

The following samples were analyzed in this batch:

HS14050073-01	HS14050073-03	HS14050073-05	HS14050073-07
HS14050073-09	HS14050073-11	HS14050073-13	HS14050073-15
HS14050073-17	HS14050073-19	HS14050073-21	HS14050073-23
HS14050073-25	HS14050073-27		

Note: See Qualifiers Page for a list of qualifiers and their explanation.

OC BATCH REPORT

The following samples were analyzed in this batch:	HS14050073-29	HS14050073-31	HS14050073-33	HS14050073-35
	HS14050073-37	HS14050073-39	HS14050073-41	HS14050073-43
	HS14050073-45	HS14050073-47	HS14050073-49	HS14050073-51
	HS14050073-53	HS14050073-55		

RIGHT SOLUTIONS | RIGHT PARTNER

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233105		Instrument: FID-9		Method: SW8015	
MBLK	Sample ID: GBLKW-140505	Units: mg/L		Analysis Date: 05-May-2014 12:21	
Client ID:	Run ID: FID-9_233105	SeqNo: 2821795		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Gasoline Range Organics	U	0.0500			
Surr: 4-Bromofluorobenzene	0.1198	0.00500	0.1	0 120	70 - 130
LCS	Sample ID: GLCSW-140505	Units: mg/L		Analysis Date: 05-May-2014 11:45	
Client ID:	Run ID: FID-9_233105	SeqNo: 2821794		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Gasoline Range Organics	0.9576	0.0500	1	0 95.8	70 - 130
Surr: 4-Bromofluorobenzene	0.1245	0.00500	0.1	0 124	70 - 130
MS	Sample ID: HS14050028-03MS	Units: mg/L		Analysis Date: 05-May-2014 17:04	
Client ID:	Run ID: FID-9_233105	SeqNo: 2823030		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Gasoline Range Organics	0.9187	0.0500	1	0 91.9	70 - 130
Surr: 4-Bromofluorobenzene	0.1156	0.00500	0.1	0 116	70 - 130
MSD	Sample ID: HS14050028-03MSD	Units: mg/L		Analysis Date: 05-May-2014 14:17	
Client ID:	Run ID: FID-9_233105	SeqNo: 2821800		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Gasoline Range Organics	0.9975	0.0500	1	0 99.7	70 - 130 0.9187 8.22 30
Surr: 4-Bromofluorobenzene	0.117	0.00500	0.1	0 117	70 - 130 0.1156 1.15 30
The following samples were analyzed in this batch:					
HS14050073-05		HS14050073-07		HS14050073-09	
HS14050073-15		HS14050073-17		HS14050073-19	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233215		Instrument: FID-14		Method: SW8015					
MBLK	Sample ID: GBLKW1-140506	Units: mg/L			Analysis Date: 06-May-2014 14:10				
Client ID:	Run ID: FID-14_233215	SeqNo: 2823701			PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Gasoline Range Organics	U	0.0500							
Surr: 4-Bromofluorobenzene	0.1063	0.00500	0.1	0	106	70 - 130			
LCS	Sample ID: GLCSW1-140506	Units: mg/L			Analysis Date: 06-May-2014 13:54				
Client ID:	Run ID: FID-14_233215	SeqNo: 2823700			PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Gasoline Range Organics	0.8769	0.0500	1	0	87.7	70 - 130			
Surr: 4-Bromofluorobenzene	0.1112	0.00500	0.1	0	111	70 - 130			
MS	Sample ID: HS14050073-41MS	Units: mg/L			Analysis Date: 06-May-2014 15:14				
Client ID: MW-125-0414	Run ID: FID-14_233215	SeqNo: 2823704			PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Gasoline Range Organics	0.8122	0.0500	1	0.03828	77.4	70 - 130			
Surr: 4-Bromofluorobenzene	0.1113	0.00500	0.1	0	111	70 - 130			
MSD	Sample ID: HS14050073-41MSD	Units: mg/L			Analysis Date: 06-May-2014 15:30				
Client ID: MW-125-0414	Run ID: FID-14_233215	SeqNo: 2823705			PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Gasoline Range Organics	0.8162	0.0500	1	0.03828	77.8	70 - 130	0.8122	0.486	30
Surr: 4-Bromofluorobenzene	0.1113	0.00500	0.1	0	111	70 - 130	0.1113	0	30
The following samples were anayzed in this batch:									
HS14050073-11		HS14050073-21		HS14050073-23		HS14050073-25			
HS14050073-27		HS14050073-29		HS14050073-31		HS14050073-33			
HS14050073-35		HS14050073-37		HS14050073-39		HS14050073-41			
HS14050073-43									

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233243		Instrument: FID-14		Method: SW8015	
MBLK	Sample ID: GBLKW1-140506	Units: mg/L		Analysis Date: 06-May-2014 21:51	
Client ID:	Run ID: FID-14_233243	SeqNo: 2824526		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Gasoline Range Organics	U	0.0500			
Surr: 4-Bromofluorobenzene	0.1124	0.00500	0.1	0 112	70 - 130
LCS	Sample ID: GLCSW1-140506	Units: mg/L		Analysis Date: 06-May-2014 21:19	
Client ID:	Run ID: FID-14_233243	SeqNo: 2824525		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Gasoline Range Organics	0.9625	0.0500	1	0 96.2	70 - 130
Surr: 4-Bromofluorobenzene	0.1178	0.00500	0.1	0 118	70 - 130
MS	Sample ID: HS14050149-02MS	Units: mg/L		Analysis Date: 06-May-2014 22:55	
Client ID:	Run ID: FID-14_233243	SeqNo: 2824530		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Gasoline Range Organics	0.9743	0.0500	1	0 97.4	70 - 130
Surr: 4-Bromofluorobenzene	0.1107	0.00500	0.1	0 111	70 - 130
MSD	Sample ID: HS14050149-02MSD	Units: mg/L		Analysis Date: 06-May-2014 23:10	
Client ID:	Run ID: FID-14_233243	SeqNo: 2824531		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Gasoline Range Organics	0.9323	0.0500	1	0 93.2	70 - 130 0.9743 4.4 30
Surr: 4-Bromofluorobenzene	0.1094	0.00500	0.1	0 109	70 - 130 0.1107 1.17 30
The following samples were analyzed in this batch:					
HS14050073-45		HS14050073-47		HS14050073-49	
HS14050073-55				HS14050073-51	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233326		Instrument: FID-14		Method: SW8015					
MBLK	Sample ID: GBLKW1-140507	Units: mg/L		Analysis Date: 07-May-2014 20:04					
Client ID:	Run ID: FID-14_233326	SeqNo: 2826126		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Gasoline Range Organics	U	0.0500							
Surr: 4-Bromofluorobenzene	0.108	0.00500	0.1	0	108	70 - 130			
LCS	Sample ID: GLCSW1-140507	Units: mg/L		Analysis Date: 07-May-2014 19:32					
Client ID:	Run ID: FID-14_233326	SeqNo: 2826125		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Gasoline Range Organics	1.029	0.0500	1	0	103	70 - 130			
Surr: 4-Bromofluorobenzene	0.1115	0.00500	0.1	0	111	70 - 130			
MS	Sample ID: HS14050151-06MS	Units: mg/L		Analysis Date: 07-May-2014 20:36					
Client ID:	Run ID: FID-14_233326	SeqNo: 2826163		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Gasoline Range Organics	8.85	0.0500	1	8.156	69.4	70 - 130			SO
Surr: 4-Bromofluorobenzene	0.1446	0.00500	0.1	0	145	70 - 130			S
MSD	Sample ID: HS14050151-06MSD	Units: mg/L		Analysis Date: 07-May-2014 20:52					
Client ID:	Run ID: FID-14_233326	SeqNo: 2826164		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Gasoline Range Organics	8.738	0.0500	1	8.156	58.2	70 - 130	8.85	1.27	30 SO
Surr: 4-Bromofluorobenzene	0.1305	0.00500	0.1	0	130	70 - 130	0.1446	10.3	30 S
The following samples were analyzed in this batch:									
HS14050073-01 HS14050073-03									

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82024		Instrument: ICPMS03		Method: SW6020	
MBLK	Sample ID: MBLKW4-051614	Units: mg/L		Analysis Date: 27-May-2014 18:28	
Client ID:	Run ID: ICPMS03_234394	SeqNo: 2852030		PrepDate: 16-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	U	0.00500			
Chromium	U	0.00500			
Iron	U	0.200			
Lead	U	0.00500			
Manganese	U	0.00500			
Nickel	U	0.00500			
Selenium	U	0.00500			

LCS	Sample ID: MLCSW4-051614	Units: mg/L		Analysis Date: 27-May-2014 18:32	
Client ID:	Run ID: ICPMS03_234394	SeqNo: 2852031		PrepDate: 16-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.04719	0.00500	0.05	0 94.4	80 - 120
Chromium	0.04348	0.00500	0.05	0 87.0	80 - 120
Iron	4.508	0.200	5	0 90.2	80 - 120
Lead	0.04343	0.00500	0.05	0 86.9	80 - 120
Manganese	0.04594	0.00500	0.05	0 91.9	80 - 120
Nickel	0.04461	0.00500	0.05	0 89.2	80 - 120
Selenium	0.04618	0.00500	0.05	0 92.4	80 - 120

MS	Sample ID: HS14041285-04MS	Units: mg/L		Analysis Date: 27-May-2014 20:59	
Client ID:	Run ID: ICPMS03_234394	SeqNo: 2852177		PrepDate: 16-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.07675	0.00500	0.05	0.02584 102	75 - 125
Chromium	0.04262	0.00500	0.05	0.0005248 84.2	75 - 125
Iron	4.343	0.200	5	0.01881 86.5	75 - 125
Lead	0.04266	0.00500	0.05	-0.0001301 85.6	75 - 125
Manganese	0.04321	0.00500	0.05	0.001925 82.6	75 - 125
Nickel	0.04519	0.00500	0.05	0.003568 83.2	75 - 125
Selenium	0.0584	0.00500	0.05	0.01026 96.3	75 - 125

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82024		Instrument: ICPMS03		Method: SW6020					
MSD		Sample ID: HS14041285-04MSD		Units: mg/L		Analysis Date: 27-May-2014 21:08			
Client ID:		Run ID: ICPMS03_234394		SeqNo: 2852179		PrepDate: 16-May-2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Arsenic	0.07677	0.00500	0.05	0.02584	102	75 - 125	0.07675	0.0261	25
Chromium	0.04494	0.00500	0.05	0.0005248	88.8	75 - 125	0.04262	5.3	25
Iron	4.523	0.200	5	0.01881	90.1	75 - 125	4.343	4.06	25
Lead	0.04515	0.00500	0.05	-0.0001301	90.6	75 - 125	0.04266	5.67	25
Manganese	0.04535	0.00500	0.05	0.001925	86.8	75 - 125	0.04321	4.83	25
Nickel	0.047	0.00500	0.05	0.003568	86.9	75 - 125	0.04519	3.93	25
Selenium	0.05808	0.00500	0.05	0.01026	95.6	75 - 125	0.0584	0.549	25
DUP		Sample ID: HS14041285-04DUP		Units: mg/L		Analysis Date: 27-May-2014 20:50			
Client ID:		Run ID: ICPMS03_234394		SeqNo: 2852175		PrepDate: 16-May-2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Arsenic	0.0264	0.00500					0.02584	2.14	25
Chromium	U	0.00500					0.0005248	0	25
Iron	U	0.200					0.01881	0	25
Lead	U	0.00500					-0.0001301	0	25
Manganese	U	0.00500					0.001925	0	25
Nickel	0.003617	0.00500					0.003568	0	25 J
Selenium	0.01043	0.00500					0.01026	1.64	25
PDS		Sample ID: HS14041285-04BS		Units: mg/L		Analysis Date: 27-May-2014 21:12			
Client ID:		Run ID: ICPMS03_234394		SeqNo: 2852180		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Arsenic	0.1409	0.00500	0.1	0.02584	115	75 - 125			
Chromium	0.09924	0.00500	0.1	0.0005248	98.7	75 - 125			
Iron	9.857	0.200	10	0.01881	98.4	75 - 125			
Lead	0.09439	0.00500	0.1	-0.0001301	94.5	75 - 125			
Manganese	0.09874	0.00500	0.1	0.001925	96.8	75 - 125			
Nickel	0.09787	0.00500	0.1	0.003568	94.3	75 - 125			
Selenium	0.1216	0.00500	0.1	0.01026	111	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
WorkOrder: HS14050073
Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82024		Instrument: ICPMS03		Method: SW6020	
SD	Sample ID: HS14041285-04 DIL SX	Units: mg/L		Analysis Date: 27-May-2014 20:55	
Client ID:	Run ID: ICPMS03_234394	SeqNo: 2852176		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.02559	0.0250			0.02584 0.967 10
Chromium	U	0.0250			0.0005248 0 10
Iron	U	1.00			0.01881 0 10
Lead	U	0.0250			-0.0001301 0 10
Manganese	U	0.0250			0.001925 0 10
Nickel	U	0.0250			0.003568 0 10
Selenium	0.01198	0.0250			0.01026 0 10 J
The following samples were analyzed in this batch:					
HS14050073-02		HS14050073-04		HS14050073-06	
HS14050073-10		HS14050073-12		HS14050073-08	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82074		Instrument: ICPMS04		Method: SW6020	
MBLK	Sample ID: MBLKW2-051914	Units: mg/L		Analysis Date: 28-May-2014 23:59	
Client ID:	Run ID: ICPMS04_234436	SeqNo: 2856070		PrepDate: 19-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Arsenic	U	0.00500			
Barium	U	0.00500			
Chromium	U	0.00500			
Iron	U	0.200			
Lead	U	0.00500			
Manganese	U	0.00500			
Nickel	U	0.00500			
Selenium	U	0.00500			
Vanadium	U	0.00500			

LCS	Sample ID: MLCSW2-051914	Units: mg/L		Analysis Date: 29-May-2014 00:04	
Client ID:	Run ID: ICPMS04_234436	SeqNo: 2856071		PrepDate: 19-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.05372	0.00500	0.05	0 107	80 - 120
Barium	0.111	0.00500	0.1	0 111	80 - 120
Chromium	0.05049	0.00500	0.05	0 101	80 - 120
Iron	5.031	0.200	5	0 101	80 - 120
Lead	0.04878	0.00500	0.05	0 97.6	80 - 120
Manganese	0.0514	0.00500	0.05	0 103	80 - 120
Nickel	0.05066	0.00500	0.05	0 101	80 - 120
Selenium	0.05164	0.00500	0.05	0 103	80 - 120
Vanadium	0.04962	0.00500	0.05	0 99.2	80 - 120

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82074		Instrument: ICPMS04		Method: SW6020					
MS	Sample ID: HS14050331-03MS	Units: mg/L			Analysis Date: 29-May-2014 00:19				
Client ID:	Run ID: ICPMS04_234436	SeqNo: 2856074		PrepDate: 19-May-2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Arsenic	0.05523	0.00500	0.05	0	110	75 - 125			
Barium	0.1679	0.00500	0.1	0.05803	110	75 - 125			
Chromium	0.0667	0.00500	0.05	0.01623	101	75 - 125			
Iron	5.002	0.200	5	0	100	75 - 125			
Lead	0.04975	0.00500	0.05	0	99.5	75 - 125			
Manganese	0.05801	0.00500	0.05	0.007522	101	75 - 125			
Nickel	0.05229	0.00500	0.05	0.001987	101	75 - 125			
Selenium	0.05756	0.00500	0.05	0.007493	100	75 - 125			
Vanadium	0.05221	0.00500	0.05	0.001153	102	75 - 125			

MSD	Sample ID: HS14050331-03MSD	Units: mg/L			Analysis Date: 29-May-2014 00:24				
Client ID:	Run ID: ICPMS04_234436	SeqNo: 2856075		PrepDate: 19-May-2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Arsenic	0.05198	0.00500	0.05	0	104	75 - 125	0.05523	6.05	25
Barium	0.1599	0.00500	0.1	0.05803	102	75 - 125	0.1679	4.84	25
Chromium	0.06426	0.00500	0.05	0.01623	96.1	75 - 125	0.0667	3.72	25
Iron	4.824	0.200	5	0	96.5	75 - 125	5.002	3.62	25
Lead	0.04801	0.00500	0.05	0	96.0	75 - 125	0.04975	3.56	25
Manganese	0.05588	0.00500	0.05	0.007522	96.7	75 - 125	0.05801	3.74	25
Nickel	0.04881	0.00500	0.05	0.001987	93.6	75 - 125	0.05229	6.89	25
Selenium	0.05762	0.00500	0.05	0.007493	100	75 - 125	0.05756	0.104	25
Vanadium	0.05059	0.00500	0.05	0.001153	98.9	75 - 125	0.05221	3.15	25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82074		Instrument: ICPMS04		Method: SW6020	
DUP	Sample ID: HS14050331-03DUP	Units: mg/L		Analysis Date: 29-May-2014 00:14	
Client ID:	Run ID: ICPMS04_234436	SeqNo: 2856073		PrepDate: 19-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	U	0.00500			0.000512 0 25
Barium	0.05813	0.00500			0.05803 0.165 25
Chromium	0.0158	0.00500			0.01623 2.71 25
Iron	U	0.200			0.01071 0 25
Lead	U	0.00500			0.000158 0 25
Manganese	0.007346	0.00500			0.007522 2.37 25
Nickel	0.005887	0.00500			0.001987 99.1 25 R
Selenium	0.007075	0.00500			0.007493 5.74 25
Vanadium	0.001187	0.00500			0.001153 0 25 J

PDS	Sample ID: HS14050331-03BS	Units: mg/L		Analysis Date: 29-May-2014 00:33	
Client ID:	Run ID: ICPMS04_234436	SeqNo: 2856077		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.09849	0.00500	0.1	0.000512 98.0	75 - 125
Barium	0.1509	0.00500	0.1	0.05803 92.9	75 - 125
Chromium	0.111	0.00500	0.1	0.01623 94.7	75 - 125
Iron	9.561	0.200	10	0.01071 95.5	75 - 125
Lead	0.09463	0.00500	0.1	0.000158 94.5	75 - 125
Manganese	0.1031	0.00500	0.1	0.007522 95.6	75 - 125
Nickel	0.09216	0.00500	0.1	0.001987 90.2	75 - 125
Selenium	0.1048	0.00500	0.1	0.007493 97.3	75 - 125
Vanadium	0.0989	0.00500	0.1	0.001153 97.7	75 - 125

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82074		Instrument: ICPMS04		Method: SW6020	
SD	Sample ID: HS14050331-03 DIL SX	Units: mg/L		Analysis Date: 29-May-2014 00:28	
Client ID:	Run ID: ICPMS04_234436	SeqNo: 2856076		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	U	0.0250			0.000512 0 10
Barium	0.0578	0.0250			0.05803 0.396 10
Chromium	0.0158	0.0250			0.01623 0 10 J
Iron	U	1.00			0.01071 0 10
Lead	U	0.0250			0.000158 0 10
Manganese	U	0.0250			0.007522 0 10
Nickel	U	0.0250			0.001987 0 10
Selenium	0.01014	0.0250			0.007493 0 10 J
Vanadium	U	0.0250			0.001153 0 10
The following samples were analyzed in this batch:					
HS14050073-14		HS14050073-16		HS14050073-18	
HS14050073-22		HS14050073-24		HS14050073-26	
HS14050073-30		HS14050073-32		HS14050073-34	
HS14050073-38		HS14050073-40		HS14050073-42	
HS14050073-46		HS14050073-48		HS14050073-44	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82119		Instrument: HG03		Method: SW7470	
MBLK	Sample ID: GBLKW2-052014	Units: mg/L		Analysis Date: 20-May-2014 22:11	
Client ID:	Run ID: HG03_234077	SeqNo: 2844710		PrepDate: 20-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	U	0.000200			
LCS	Sample ID: GLCSW2-052014	Units: mg/L		Analysis Date: 20-May-2014 22:12	
Client ID:	Run ID: HG03_234077	SeqNo: 2844711		PrepDate: 20-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	0.00498	0.000200	0.005	0 99.6	80 - 124
MS	Sample ID: HS14050576-23MS	Units: mg/L		Analysis Date: 21-May-2014 14:11	
Client ID:	Run ID: HG03_234077	SeqNo: 2845018		PrepDate: 20-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	0.0046	0.000200	0.005	0.00002 91.6	80 - 124
MSD	Sample ID: HS14050576-23MSD	Units: mg/L		Analysis Date: 21-May-2014 14:13	
Client ID:	Run ID: HG03_234077	SeqNo: 2845019		PrepDate: 20-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	0.00467	0.000200	0.005	0.00002 93.0	80 - 124 0.0046 1.51 20
DUP	Sample ID: HS14050576-23DUP	Units: mg/L		Analysis Date: 20-May-2014 22:47	
Client ID:	Run ID: HG03_234077	SeqNo: 2844731		PrepDate: 20-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	U	0.000200		0.00002	0 20
The following samples were analyzed in this batch:					
HS14050073-01 HS14050073-11 HS14050073-13					

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82140		Instrument: ICPMS05		Method: SW6020	
MBLK	Sample ID: MBLKW4-052014	Units: mg/L		Analysis Date: 27-May-2014 16:05	
Client ID:	Run ID: ICPMS05_234373	SeqNo: 2851217		PrepDate: 20-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Arsenic	U	0.00500			
Barium	U	0.00500			
Calcium	0.0626	0.500			J
Chromium	U	0.00500			
Iron	U	0.200			
Lead	0.000604	0.00500			J
Manganese	U	0.00500			
Nickel	U	0.00500			
Potassium	U	0.200			
Selenium	U	0.00500			
Sodium	0.02838	0.200			J
Vanadium	0.001728	0.00500			J

LCS	Sample ID: MLCSW4-052014	Units: mg/L		Analysis Date: 27-May-2014 16:07	
Client ID:	Run ID: ICPMS05_234373	SeqNo: 2851218		PrepDate: 20-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Arsenic	0.05166	0.00500	0.05	0 103	80 - 120
Barium	0.1187	0.00500	0.1	0 119	80 - 120
Calcium	5.301	0.500	5	0 106	80 - 120
Chromium	0.04922	0.00500	0.05	0 98.4	80 - 120
Iron	5.013	0.200	5	0 100	80 - 120
Lead	0.05014	0.00500	0.05	0 100	80 - 120
Manganese	0.0512	0.00500	0.05	0 102	80 - 120
Nickel	0.04942	0.00500	0.05	0 98.8	80 - 120
Potassium	5.126	0.200	5	0 103	80 - 120
Selenium	0.04951	0.00500	0.05	0 99.0	80 - 120
Sodium	5.132	0.200	5	0 103	80 - 120
Vanadium	0.0551	0.00500	0.05	0 110	80 - 120

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82140		Instrument: ICPMS05		Method: SW6020						
MS		Sample ID: HS14050666-04MS		Units: mg/L		Analysis Date: 27-May-2014 20:17				
Client ID:		Run ID: ICPMS05_234373		SeqNo: 2851938		PrepDate: 20-May-2014		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05052	0.0250	0.05	0.000004	101	80 - 120				
Barium	0.1138	0.0250	0.05	0.01126	205	80 - 120				S
Calcium	414.6	2.50	5	418.5	-76.5	80 - 120				SO
Chromium	0.04497	0.0250	0.05	0.000722	88.5	80 - 120				
Iron	4.448	1.00	5	0.04799	88.0	80 - 120				
Lead	0.04669	0.0250	0.05	0.001186	91.0	80 - 120				
Manganese	0.05425	0.0250	0.05	0.01149	85.5	80 - 120				
Nickel	0.04972	0.0250	0.05	0.00555	88.3	80 - 120				
Potassium	23.36	1.00	5	20.04	66.5	80 - 120				SO
Selenium	0.04448	0.0250	0.05	0.002829	83.3	80 - 120				
Sodium	2631	1.00	5	2778	-	80 - 120				SEO
					2940					
Vanadium	0.03815	0.0250	0.05	-0.008073	92.4	80 - 120				

MSD		Sample ID: HS14050666-04MSD		Units: mg/L		Analysis Date: 27-May-2014 20:19				
Client ID:		Run ID: ICPMS05_234373		SeqNo: 2851939		PrepDate: 20-May-2014		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04826	0.0250	0.05	0.000004	96.5	80 - 120	0.05052	4.58	15	
Barium	0.1176	0.0250	0.05	0.01126	213	80 - 120	0.1138	3.31	15	S
Calcium	427.5	2.50	5	418.5	180	80 - 120	414.6	3.05	15	SO
Chromium	0.04735	0.0250	0.05	0.000722	93.3	80 - 120	0.04497	5.15	15	
Iron	4.557	1.00	5	0.04799	90.2	80 - 120	4.448	2.4	15	
Lead	0.04738	0.0250	0.05	0.001186	92.4	80 - 120	0.04669	1.48	15	
Manganese	0.05748	0.0250	0.05	0.01149	92.0	80 - 120	0.05425	5.78	15	
Nickel	0.04782	0.0250	0.05	0.00555	84.5	80 - 120	0.04972	3.9	15	
Potassium	23.62	1.00	5	20.04	71.6	80 - 120	23.36	1.1	15	SO
Selenium	0.0455	0.0250	0.05	0.002829	85.3	80 - 120	0.04448	2.26	15	
Sodium	2609	1.00	5	2778	-	80 - 120	2631	0.827	15	SEO
					3380					
Vanadium	0.03734	0.0250	0.05	-0.008073	90.8	80 - 120	0.03815	2.14	15	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82140		Instrument: ICPMS05		Method: SW6020						
DUP	Sample ID: HS14050666-04DUP	Units: mg/L		Analysis Date: 27-May-2014 20:12						
Client ID:	Run ID: ICPMS05_234373	SeqNo: 2851936		PrepDate: 20-May-2014		DF: 5				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.0250					0.000004	0	25	
Barium	0.01065	0.0250					0.01126	0	25	J
Chromium	U	0.0250					0.000722	0	25	
Iron	U	1.00					0.04799	0	25	
Lead	U	0.0250					0.001186	0	25	
Manganese	U	0.0250					0.01149	0	25	
Nickel	0.00381	0.0250					0.00555	0	25	J
Potassium	18.67	1.00					20.04	7.08	25	
Selenium	U	0.0250					0.002829	0	25	
Vanadium	U	0.0250					-0.008073	0	25	

DUP	Sample ID: HS14050666-04DUP	Units: mg/L		Analysis Date: 27-May-2014 19:52						
Client ID:	Run ID: ICPMS05_234373	SeqNo: 2851928		PrepDate: 20-May-2014		DF: 100				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	416.3	50.0					643.5	42.9	25	R
Sodium	2648	20.0					3143	17.1	25	

PDS	Sample ID: HS14050666-04BS	Units: mg/L		Analysis Date: 27-May-2014 20:22						
Client ID:	Run ID: ICPMS05_234373	SeqNo: 2851940		PrepDate:		DF: 5				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.4929	0.0250	0.5	0	98.6	75 - 125				
Barium	0.4756	0.0250	0.5	0.01126	92.9	75 - 125				
Chromium	0.4716	0.0250	0.5	0	94.3	75 - 125				
Iron	47.26	1.00	50	0	94.5	75 - 125				
Lead	0.4638	0.0250	0.5	0	92.8	75 - 125				
Manganese	0.49	0.0250	0.5	0	98.0	75 - 125				
Nickel	0.467	0.0250	0.5	0.00555	92.3	75 - 125				
Potassium	62.58	1.00	50	20.04	85.1	75 - 125				
Selenium	0.4924	0.0250	0.5	0	98.5	75 - 125				
Vanadium	0.488	0.0250	0.5	0	97.6	75 - 125				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82140		Instrument: ICPMS05		Method: SW6020	
PDS	Sample ID: HS14050666-04BS	Units: mg/L		Analysis Date: 27-May-2014 19:57	
Client ID:	Run ID: ICPMS05_234373	SeqNo: 2851930		PrepDate:	DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Calcium	1416	50.0	1000	643.5 77.2	75 - 125
Sodium	3615	20.0	1000	3143 47.2	75 - 125 S
SD	Sample ID: HS14050666-04 DIL SX	Units: mg/L		Analysis Date: 27-May-2014 20:14	
Client ID:	Run ID: ICPMS05_234373	SeqNo: 2851937		PrepDate:	DF: 25
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	U	0.125			0.000004 0 10
Barium	U	0.125			0.01126 0 10
Chromium	U	0.125			0.000722 0 10
Iron	U	5.00			0.04799 0 10
Lead	U	0.125			0.001186 0 10
Manganese	U	0.125			0.01149 0 10
Nickel	U	0.125			0.00555 0 10
Potassium	19.7	5.00			20.04 1.67 10
Selenium	U	0.125			0.002829 0 10
Vanadium	U	0.125			-0.008073 0 10
SD	Sample ID: HS14050666-04 DIL SX	Units: mg/L		Analysis Date: 27-May-2014 19:55	
Client ID:	Run ID: ICPMS05_234373	SeqNo: 2851929		PrepDate:	DF: 500
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Calcium	491.6	250			643.5 23.6 10 R
Sodium	2992	100			3143 4.8 10
The following samples were analyzed in this batch:					
HS14050073-01		HS14050073-05		HS14050073-07	
HS14050073-11		HS14050073-13		HS14050073-15	
HS14050073-19		HS14050073-21		HS14050073-23	
				HS14050073-25	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82186		Instrument: ICPMS04		Method: SW6020	
MBLK	Sample ID: MBLKW1-052114	Units: mg/L		Analysis Date: 03-Jun-2014 03:38	
Client ID:	Run ID: ICPMS04_234734	SeqNo: 2860896		PrepDate: 21-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Arsenic	U	0.00500			
Barium	U	0.00500			
Chromium	U	0.00500			
Iron	U	0.200			
Lead	U	0.00500			
Manganese	U	0.00500			
Nickel	0.001168	0.00500			J
Selenium	U	0.00500			
Vanadium	U	0.00500			

LCS	Sample ID: MLCSW1-052114	Units: mg/L		Analysis Date: 03-Jun-2014 03:43	
Client ID:	Run ID: ICPMS04_234734	SeqNo: 2860897		PrepDate: 21-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Arsenic	0.05203	0.00500	0.05	0 104	80 - 120
Barium	0.05242	0.00500	0.05	0 105	80 - 120
Chromium	0.05147	0.00500	0.05	0 103	80 - 120
Iron	5.074	0.200	5	0 101	80 - 120
Lead	0.0504	0.00500	0.05	0 101	80 - 120
Manganese	0.05203	0.00500	0.05	0 104	80 - 120
Nickel	0.05243	0.00500	0.05	0 105	80 - 120
Selenium	0.0514	0.00500	0.05	0 103	80 - 120
Vanadium	0.05204	0.00500	0.05	0 104	80 - 120

MS	Sample ID: HS14050689-02MS	Units: mg/L		Analysis Date: 03-Jun-2014 04:03	
Client ID:	Run ID: ICPMS04_234734	SeqNo: 2860901		PrepDate: 21-May-2014	DF: 2
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Arsenic	0.05342	0.0100	0.05	0.000466 106	75 - 125
Barium	0.08737	0.0100	0.05	0.0221 131	75 - 125 S
Chromium	0.05341	0.0100	0.05	0.00184 103	75 - 125
Nickel	0.05206	0.0100	0.05	0.003186 97.7	75 - 125
Selenium	0.05129	0.0100	0.05	0.000181 102	75 - 125
Vanadium	0.05392	0.0100	0.05	0.000451 107	75 - 125

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82186		Instrument: ICPMS04		Method: SW6020	
MS	Sample ID: HS14050689-02MS	Units: mg/L		Analysis Date: 18-Jun-2014 23:08	
Client ID:	Run ID: ICPMS05_235796	SeqNo: 2886531		PrepDate: 21-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Iron	4.711	0.200	5	0 94.2	75 - 125
Lead	0.04913	0.00500	0.05	0 98.3	75 - 125
Manganese	0.05578	0.00500	0.05	0.008934 93.7	75 - 125

MSD	Sample ID: HS14050689-02MSD	Units: mg/L		Analysis Date: 03-Jun-2014 04:14	
Client ID:	Run ID: ICPMS04_234734	SeqNo: 2860903		PrepDate: 21-May-2014	DF: 2
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.05626	0.0100	0.05	0.000466 112	75 - 125 0.05342 5.18 25
Barium	0.09037	0.0100	0.05	0.0221 137	75 - 125 0.08737 3.38 25 S
Chromium	0.05602	0.0100	0.05	0.00184 108	75 - 125 0.05341 4.76 25
Nickel	0.0544	0.0100	0.05	0.003186 102	75 - 125 0.05206 4.4 25
Selenium	0.05323	0.0100	0.05	0.000181 106	75 - 125 0.05129 3.71 25
Vanadium	0.05612	0.0100	0.05	0.000451 111	75 - 125 0.05392 4 25

MSD	Sample ID: HS14050689-02MSD	Units: mg/L		Analysis Date: 18-Jun-2014 23:10	
Client ID:	Run ID: ICPMS05_235796	SeqNo: 2886532		PrepDate: 21-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Iron	4.693	0.200	5	0 93.9	75 - 125 4.711 0.365 25
Lead	0.05086	0.00500	0.05	0 102	75 - 125 0.04913 3.45 25
Manganese	0.05524	0.00500	0.05	0.008934 92.6	75 - 125 0.05578 0.984 25

DUP	Sample ID: HS14050689-02DUP	Units: mg/L		Analysis Date: 03-Jun-2014 03:53	
Client ID:	Run ID: ICPMS04_234734	SeqNo: 2860899		PrepDate: 21-May-2014	DF: 2
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	U	0.0100			0.000466 0 25
Barium	0.0203	0.0100			0.0221 8.5 25
Chromium	U	0.0100			0.00184 0 25
Nickel	0.002543	0.0100			0.003186 0 25 J
Selenium	U	0.0100			0.000181 0 25
Vanadium	U	0.0100			0.000451 0 25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82186		Instrument: ICPMS04		Method: SW6020	
DUP	Sample ID: HS14050689-02DUP	Units: mg/L		Analysis Date: 16-Jun-2014 14:32	
Client ID:	Run ID: ICPMS05_235621	SeqNo: 2881812		PrepDate: 21-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Iron	U	0.200			0.02874 0 25
Lead	U	0.00500			0.000092 0 25
Manganese	0.007972	0.00500			0.008934 11.4 25

PDS	Sample ID: HS14050689-02BS	Units: mg/L		Analysis Date: 03-Jun-2014 04:29	
Client ID:	Run ID: ICPMS04_234734	SeqNo: 2860906		PrepDate:	DF: 2
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.1974	0.0100	0.2	0.000466 98.5	75 - 125
Barium	0.2096	0.0100	0.2	0.0221 93.8	75 - 125
Chromium	0.1962	0.0100	0.2	0.00184 97.2	75 - 125
Iron	18.79	0.400	20	0.02526 93.8	75 - 125
Lead	0.1904	0.0100	0.2	0.000376 95.0	75 - 125
Manganese	0.2046	0.0100	0.2	0.01029 97.1	75 - 125
Nickel	0.1886	0.0100	0.2	0.003186 92.7	75 - 125
Selenium	0.1971	0.0100	0.2	0.000181 98.5	75 - 125
Vanadium	0.202	0.0100	0.2	0.000451 101	75 - 125

SD	Sample ID: HS14050689-02 DIL SX	Units: mg/L		Analysis Date: 03-Jun-2014 03:58	
Client ID:	Run ID: ICPMS04_234734	SeqNo: 2860900		PrepDate:	DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	U	0.0500			0.000466 0 10
Barium	0.02221	0.0500			0.0221 0 10 J
Chromium	U	0.0500			0.00184 0 10
Iron	U	2.00			0.02526 0 10
Lead	U	0.0500			0.000376 0 10
Manganese	U	0.0500			0.01029 0 10
Nickel	U	0.0500			0.003186 0 10
Selenium	U	0.0500			0.000181 0 10
Vanadium	U	0.0500			0.000451 0 10

The following samples were analyzed in this batch:					
HS14050073-50	HS14050073-52	HS14050073-54	HS14050073-56		

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82188		Instrument: ICPMS03	Method: SW6020	
MBLK	Sample ID: MBLKW2-052114	Units: mg/L	Analysis Date: 30-May-2014 00:37	
Client ID:	Run ID: ICPMS03_234642	SeqNo: 2858003	PrepDate: 21-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Arsenic	U	0.00500		
Barium	U	0.00500		
Calcium	U	0.500		
Chromium	U	0.00500		
Iron	U	0.200		
Lead	U	0.00500		
Manganese	U	0.00500		
Potassium	U	0.200		
Selenium	0.001702	0.00500		J
Sodium	0.04559	0.200		J

LCS	Sample ID: MLCSW2-052114	Units: mg/L	Analysis Date: 30-May-2014 00:41	
Client ID:	Run ID: ICPMS03_234642	SeqNo: 2858004	PrepDate: 21-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Arsenic	0.05181	0.00500	0.05	0 104 80 - 120
Barium	0.04929	0.00500	0.05	0 98.6 80 - 120
Calcium	4.976	0.500	5	0 99.5 80 - 120
Chromium	0.04854	0.00500	0.05	0 97.1 80 - 120
Iron	4.99	0.200	5	0 99.8 80 - 120
Lead	0.04877	0.00500	0.05	0 97.5 80 - 120
Manganese	0.04947	0.00500	0.05	0 98.9 80 - 120
Potassium	5.192	0.200	5	0 104 80 - 120
Selenium	0.05319	0.00500	0.05	0 106 80 - 120
Sodium	4.96	0.200	5	0 99.2 80 - 120

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82188		Instrument: ICPMS03		Method: SW6020						
MS		Sample ID: HS14050767-01MS		Units: mg/L		Analysis Date: 30-May-2014 00:59				
Client ID:		Run ID: ICPMS03_234642		SeqNo: 2858008		PrepDate: 21-May-2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04978	0.00500	0.05	-0.0003012	100	80 - 120				
Barium	0.05148	0.00500	0.05	0.003013	96.9	80 - 120				
Calcium	8.943	0.500	5	4.354	91.8	80 - 120				
Chromium	0.04555	0.00500	0.05	0.0003195	90.5	80 - 120				
Iron	5.027	0.200	5	0.07668	99.0	80 - 120				
Lead	0.05102	0.00500	0.05	0.003699	94.6	80 - 120				
Manganese	0.06505	0.00500	0.05	0.0168	96.5	80 - 120				
Potassium	11.52	0.200	5	6.957	91.3	80 - 120				
Selenium	0.05226	0.00500	0.05	0.001718	101	80 - 120				
Sodium	393.7	0.200	5	399.1	-108	80 - 120				SEO

MSD		Sample ID: HS14050767-01MSD		Units: mg/L		Analysis Date: 30-May-2014 01:04				
Client ID:		Run ID: ICPMS03_234642		SeqNo: 2858009		PrepDate: 21-May-2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05046	0.00500	0.05	-0.0003012	102	80 - 120	0.04978	1.36	15	
Barium	0.05157	0.00500	0.05	0.003013	97.1	80 - 120	0.05148	0.175	15	
Calcium	9.068	0.500	5	4.354	94.3	80 - 120	8.943	1.39	15	
Chromium	0.04587	0.00500	0.05	0.0003195	91.1	80 - 120	0.04555	0.7	15	
Iron	4.828	0.200	5	0.07668	95.0	80 - 120	5.027	4.04	15	
Lead	0.05063	0.00500	0.05	0.003699	93.9	80 - 120	0.05102	0.767	15	
Manganese	0.06332	0.00500	0.05	0.0168	93.0	80 - 120	0.06505	2.7	15	
Potassium	11.64	0.200	5	6.957	93.7	80 - 120	11.52	1.04	15	
Selenium	0.05254	0.00500	0.05	0.001718	102	80 - 120	0.05226	0.534	15	
Sodium	394.8	0.200	5	399.1	-86.0	80 - 120	393.7	0.279	15	SEO

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82188		Instrument: ICPMS03		Method: SW6020	
DUP	Sample ID: HS14050767-01DUP	Units: mg/L		Analysis Date: 30-May-2014 00:50	
Client ID:	Run ID: ICPMS03_234642	SeqNo: 2858006		PrepDate: 21-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	U	0.00500			-0.0003012 0 25
Barium	0.00312	0.00500			0.003013 0 25 J
Calcium	4.459	0.500			4.354 2.38 25
Chromium	U	0.00500			0.0003195 0 25
Iron	0.08862	0.200			0.07668 0 25 J
Lead	0.003835	0.00500			0.003699 0 25 J
Manganese	0.01702	0.00500			0.0168 1.3 25
Potassium	7.179	0.200			6.957 3.14 25
Selenium	0.00204	0.00500			0.001718 0 25 J

DUP	Sample ID: HS14050767-01DUP	Units: mg/L		Analysis Date: 03-Jun-2014 21:06	
Client ID:	Run ID: ICPMS04_234808	SeqNo: 2862596		PrepDate: 21-May-2014	DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Sodium	415.9	2.00			398.2 4.34 25

PDS	Sample ID: HS14050767-01BS	Units: mg/L		Analysis Date: 30-May-2014 01:08	
Client ID:	Run ID: ICPMS03_234642	SeqNo: 2858010		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Arsenic	0.09847	0.00500	0.1	-0.0003012 98.8	75 - 125
Barium	0.09589	0.00500	0.1	0.003013 92.9	75 - 125
Calcium	13.5	0.500	10	4.354 91.5	75 - 125
Chromium	0.09054	0.00500	0.1	0.0003195 90.2	75 - 125
Iron	9.161	0.200	10	0.07668 90.8	75 - 125
Lead	0.09566	0.00500	0.1	0.003699 92.0	75 - 125
Manganese	0.1064	0.00500	0.1	0.0168 89.6	75 - 125
Potassium	15.74	0.200	10	6.957 87.8	75 - 125
Selenium	0.1024	0.00500	0.1	0.001718 101	75 - 125

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82188		Instrument: ICPMS03		Method: SW6020	
PDS	Sample ID: HS14050767-01BS	Units: mg/L		Analysis Date: 03-Jun-2014 21:16	
Client ID:	Run ID: ICPMS04_234808	SeqNo: 2862598		PrepDate:	DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Sodium	496.1	2.00	100	398.2	97.9	75 - 125

SD	Sample ID: HS14050767-01 DIL SX	Units: mg/L		Analysis Date: 30-May-2014 00:55	
Client ID:	Run ID: ICPMS03_234642	SeqNo: 2858007		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Arsenic	U	0.0250				-0.0003012	0	10
Barium	U	0.0250				0.003013	0	10
Calcium	4.396	2.50				4.354	0.976	10
Chromium	U	0.0250				0.0003195	0	10
Iron	U	1.00				0.07668	0	10
Lead	0.004392	0.0250				0.003699	0	10 J
Manganese	0.01757	0.0250				0.0168	0	10 J
Potassium	7.315	1.00				6.957	5.15	10
Selenium	0.00526	0.0250				0.001718	0	10 J

SD	Sample ID: HS14050767-01 DIL SX	Units: mg/L		Analysis Date: 03-Jun-2014 21:11	
Client ID:	Run ID: ICPMS04_234808	SeqNo: 2862597		PrepDate:	DF: 50
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Sodium	414.1	10.0			398.2 4 10

The following samples were analyzed in this batch:

HS14050073-03	HS14050073-27	HS14050073-29	HS14050073-31
HS14050073-33	HS14050073-35	HS14050073-37	HS14050073-39
HS14050073-41	HS14050073-43	HS14050073-45	HS14050073-47
HS14050073-49	HS14050073-51	HS14050073-53	HS14050073-55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82340		Instrument: HG03		Method: SW7470	
MBLK	Sample ID: GBLKW2-052714	Units: mg/L		Analysis Date: 27-May-2014 16:38	
Client ID:	Run ID: HG03_234385	SeqNo: 2851322		PrepDate: 27-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	U	0.000200			
LCS	Sample ID: GLCSW2-052714	Units: mg/L		Analysis Date: 27-May-2014 16:40	
Client ID:	Run ID: HG03_234385	SeqNo: 2851323		PrepDate: 27-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	0.0056	0.000200	0.005	0 112	80 - 120
MS	Sample ID: HS14041212-01MS	Units: mg/L		Analysis Date: 27-May-2014 16:48	
Client ID:	Run ID: HG03_234385	SeqNo: 2851326		PrepDate: 27-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	0.005	0.000200	0.005	0.00001 99.8	80 - 120
MSD	Sample ID: HS14041212-01MSD	Units: mg/L		Analysis Date: 27-May-2014 16:50	
Client ID:	Run ID: HG03_234385	SeqNo: 2851327		PrepDate: 27-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	0.00477	0.000200	0.005	0.00001 95.2	80 - 120 0.005 4.71 20
DUP	Sample ID: HS14041212-01DUP	Units: mg/L		Analysis Date: 27-May-2014 16:43	
Client ID:	Run ID: HG03_234385	SeqNo: 2851325		PrepDate: 27-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	U	0.000200		0.00001	0 20
The following samples were analyzed in this batch:					
HS14050073-12 HS14050073-14 HS14050073-26 HS14050073-44 HS14050073-56					

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: 82369		Instrument: HG03		Method: SW7470	
MBLK	Sample ID: GBLKW5-052714	Units: mg/L		Analysis Date: 28-May-2014 11:39	
Client ID:	Run ID: HG03_234385	SeqNo: 2852682		PrepDate: 27-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	U	0.000200			
LCS	Sample ID: GLCSW5-052714	Units: mg/L		Analysis Date: 28-May-2014 11:41	
Client ID:	Run ID: HG03_234385	SeqNo: 2852683		PrepDate: 27-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	0.00511	0.000200	0.005	0 102	80 - 124
MS	Sample ID: HS14050021-01MS	Units: mg/L		Analysis Date: 28-May-2014 11:46	
Client ID:	Run ID: HG03_234385	SeqNo: 2852686		PrepDate: 27-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	0.00532	0.000200	0.005	-0.000006 107	80 - 124
MSD	Sample ID: HS14050021-01MSD	Units: mg/L		Analysis Date: 28-May-2014 11:48	
Client ID:	Run ID: HG03_234385	SeqNo: 2852687		PrepDate: 27-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	0.00524	0.000200	0.005	-0.000006 105	80 - 124 0.00532 1.52 20
DUP	Sample ID: HS14050021-01DUP	Units: mg/L		Analysis Date: 28-May-2014 11:44	
Client ID:	Run ID: HG03_234385	SeqNo: 2852685		PrepDate: 27-May-2014	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Mercury	U	0.000200		-0.000006	0 20
The following samples were analyzed in this batch:					
HS14050073-17		HS14050073-25		HS14050073-43	
				HS14050073-55	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233224		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140505	Units: ug/L		Analysis Date: 05-May-2014 20:42					
Client ID:	Run ID: VOA6_233224	SeqNo: 2824132		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	U	5.0							
1,1,2,2-Tetrachloroethane	U	5.0							
1,1,2-Trichloroethane	U	5.0							
1,1-Dichloroethane	U	5.0							
1,1-Dichloroethene	U	5.0							
1,2,4-Trimethylbenzene	U	5.0							
1,2-Dibromoethane	U	5.0							
1,2-Dichloroethane	U	5.0							
1,2-Dichloropropane	U	5.0							
1,3,5-Trimethylbenzene	U	5.0							
2-Butanone	U	10							
2-Hexanone	U	10							
4-Isopropyltoluene	U	5.0							
4-Methyl-2-pentanone	U	10							
Acetone	U	10							
Benzene	U	5.0							
Bromodichloromethane	U	5.0							
Bromoform	U	5.0							
Bromomethane	U	5.0							
Carbon disulfide	U	10							
Carbon tetrachloride	U	5.0							
Chlorobenzene	U	5.0							
Chloroethane	U	5.0							
Chloroform	U	5.0							
Chloromethane	U	5.0							
cis-1,2-Dichloroethene	U	5.0							
cis-1,3-Dichloropropene	U	5.0							
Dibromochloromethane	U	5.0							
Ethylbenzene	U	5.0							
Isopropylbenzene	U	5.0							
m,p-Xylene	U	10							
Methyl tert-butyl ether	U	5.0							
Methylene chloride	U	10							
Naphthalene	U	5.0							

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233224		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140505	Units: ug/L		Analysis Date: 05-May-2014 20:42					
Client ID:	Run ID: VOA6_233224	SeqNo: 2824132		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
n-Butylbenzene	U	5.0							
n-Propylbenzene	U	5.0							
o-Xylene	U	5.0							
sec-Butylbenzene	U	5.0							
Styrene	U	5.0							
Tetrachloroethene	U	5.0							
Toluene	U	5.0							
trans-1,2-Dichloroethene	U	5.0							
trans-1,3-Dichloropropene	U	5.0							
Trichloroethene	U	5.0							
Vinyl chloride	U	2.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	51.54	5.0	50	0	103	70 - 125			
Surr: 4-Bromofluorobenzene	48.63	5.0	50	0	97.3	72 - 125			
Surr: Dibromofluoromethane	51.76	5.0	50	0	104	71 - 125			
Surr: Toluene-d8	49.21	5.0	50	0	98.4	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233224		Instrument: VOA6		Method: SW8260						
LCS		Sample ID: VLCSW-140505		Units: ug/L		Analysis Date: 05-May-2014 19:54				
Client ID:		Run ID: VOA6_233224		SeqNo: 2824131		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.6	5.0	50	0	103	80 - 120				
1,1,2,2-Tetrachloroethane	47.5	5.0	50	0	95.0	72 - 120				
1,1,2-Trichloroethane	48.3	5.0	50	0	96.6	80 - 120				
1,1-Dichloroethane	50	5.0	50	0	100.0	76 - 120				
1,1-Dichloroethene	48.85	5.0	50	0	97.7	73 - 124				
1,2,4-Trimethylbenzene	50.56	5.0	50	0	101	68 - 123				
1,2-Dibromoethane	49.56	5.0	50	0	99.1	80 - 120				
1,2-Dichloroethane	49.62	5.0	50	0	99.2	78 - 120				
1,2-Dichloropropane	49.19	5.0	50	0	98.4	80 - 120				
1,3,5-Trimethylbenzene	49.68	5.0	50	0	99.4	80 - 120				
2-Butanone	94.87	10	100	0	94.9	58 - 132				
2-Hexanone	96.58	10	100	0	96.6	61 - 130				
4-Isopropyltoluene	50.57	5.0	50	0	101	79 - 120				
4-Methyl-2-pentanone	96.45	10	100	0	96.5	65 - 127				
Acetone	93.13	10	100	0	93.1	59 - 137				
Benzene	47.72	5.0	50	0	95.4	73 - 121				
Bromodichloromethane	51.11	5.0	50	0	102	75 - 125				
Bromoform	54.52	5.0	50	0	109	70 - 130				
Bromomethane	59.63	5.0	50	0	119	60 - 145				
Carbon disulfide	90.96	10	100	0	91.0	68 - 141				
Carbon tetrachloride	56.8	5.0	50	0	114	75 - 125				
Chlorobenzene	49.25	5.0	50	0	98.5	80 - 120				
Chloroethane	48.94	5.0	50	0	97.9	70 - 130				
Chloroform	48.51	5.0	50	0	97.0	70 - 130				
Chloromethane	47.32	5.0	50	0	94.6	67 - 123				
cis-1,2-Dichloroethene	75.84	5.0	50	0	152	78 - 120				S
cis-1,3-Dichloropropene	54.93	5.0	50	0	110	80 - 120				
Dibromochloromethane	52.98	5.0	50	0	106	80 - 120				
Ethylbenzene	49.49	5.0	50	0	99.0	80 - 120				
Isopropylbenzene	49.59	5.0	50	0	99.2	75 - 130				
m,p-Xylene	98.98	10	100	0	99.0	78 - 121				
Methyl tert-butyl ether	50.45	5.0	50	0	101	70 - 125				
Methylene chloride	49.79	10	50	0	99.6	65 - 133				
Naphthalene	48.64	5.0	50	0	97.3	65 - 135				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233224		Instrument: VOA6		Method: SW8260	
LCS		Sample ID: VLCSW-140505		Units: ug/L	
Client ID:		Run ID: VOA6_233224		SeqNo: 2824131	
Analyte		Result		PQL	
				SPK Val	
				SPK Ref Value %REC	
				Control Limit	
				RPD Ref Value %RPD	
				RPD Limit Qual	
n-Butylbenzene		52		5.0 50	
n-Propylbenzene		50.61		5.0 50	
o-Xylene		48.65		5.0 50	
sec-Butylbenzene		50.65		5.0 50	
Styrene		50.76		5.0 50	
Tetrachloroethene		49.71		5.0 50	
Toluene		50.19		5.0 50	
trans-1,2-Dichloroethene		49.96		5.0 50	
trans-1,3-Dichloropropene		48.04		5.0 50	
Trichloroethene		50.73		5.0 50	
Vinyl chloride		49.57		2.0 50	
Xylenes, Total		147.6		15 150	
Surr: 1,2-Dichloroethane-d4		49.81		5.0 50	
Surr: 4-Bromofluorobenzene		50.6		5.0 50	
Surr: Dibromofluoromethane		50.11		5.0 50	
Surr: Toluene-d8		50.01		5.0 50	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233224		Instrument: VOA6		Method: SW8260						
MS		Sample ID: HS14050073-07MS		Units: ug/L		Analysis Date: 06-May-2014 00:18				
Client ID: MW-101-0414		Run ID: VOA6_233224		SeqNo: 2824141		PrepDate:		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	492.6	50	500	0	98.5	80 - 120				
1,1,2,2-Tetrachloroethane	465.3	50	500	0	93.1	72 - 120				
1,1,2-Trichloroethane	478.5	50	500	0	95.7	80 - 120				
1,1-Dichloroethane	476.4	50	500	0	95.3	76 - 120				
1,1-Dichloroethene	465.4	50	500	0	93.1	73 - 124				
1,2,4-Trimethylbenzene	477.2	50	500	8.337	93.8	68 - 123				
1,2-Dibromoethane	497.8	50	500	0	99.6	80 - 120				
1,2-Dichloroethane	502	50	500	28.74	94.7	78 - 120				
1,2-Dichloropropane	475.3	50	500	0	95.1	80 - 120				
1,3,5-Trimethylbenzene	462.6	50	500	0	92.5	80 - 120				
2-Butanone	904.5	100	1000	0	90.4	58 - 132				
2-Hexanone	930.6	100	1000	31.61	89.9	61 - 130				
4-Isopropyltoluene	472.9	50	500	0	94.6	79 - 120				
4-Methyl-2-pentanone	959.5	100	1000	0	95.9	65 - 127				
Acetone	763.2	100	1000	49.12	71.4	59 - 137				
Benzene	1554	50	500	1062	98.3	73 - 121				
Bromodichloromethane	483	50	500	0	96.6	75 - 125				
Bromoform	483.3	50	500	0	96.7	70 - 130				
Bromomethane	413.4	50	500	0	82.7	60 - 145				
Carbon disulfide	863.9	100	1000	0	86.4	68 - 141				
Carbon tetrachloride	519.5	50	500	0	104	75 - 125				
Chlorobenzene	468	50	500	0	93.6	80 - 120				
Chloroethane	450.9	50	500	0	90.2	70 - 130				
Chloroform	474.5	50	500	0	94.9	70 - 130				
Chloromethane	363	50	500	0	72.6	67 - 123				
cis-1,2-Dichloroethene	U	50	500	0	0	78 - 120				S
cis-1,3-Dichloropropene	523.2	50	500	0	105	80 - 120				
Dibromochloromethane	492.2	50	500	0	98.4	80 - 120				
Ethylbenzene	490.3	50	500	20.07	94.0	80 - 120				
Isopropylbenzene	483.2	50	500	12.08	94.2	75 - 130				
m,p-Xylene	953.5	100	1000	0	95.3	78 - 121				
Methyl tert-butyl ether	592.6	50	500	91.48	100	70 - 125				
Methylene chloride	479	100	500	0	95.8	65 - 133				
Naphthalene	445.7	50	500	41.64	80.8	65 - 135				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233224		Instrument: VOA6		Method: SW8260						
MS		Sample ID: HS14050073-07MS		Units: ug/L		Analysis Date: 06-May-2014 00:18				
Client ID: MW-101-0414		Run ID: VOA6_233224		SeqNo: 2824141		PrepDate:		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
n-Butylbenzene	475.2	50	500	0	95.0	77 - 120				
n-Propylbenzene	473.7	50	500	9.027	92.9	78 - 120				
o-Xylene	467.6	50	500	17.39	90.0	80 - 120				
sec-Butylbenzene	461.6	50	500	0	92.3	78 - 120				
Styrene	482.3	50	500	0	96.5	80 - 120				
Tetrachloroethene	492.6	50	500	0	98.5	79 - 120				
Toluene	482.6	50	500	0	96.5	80 - 120				
trans-1,2-Dichloroethene	483.5	50	500	0	96.7	78 - 120				
trans-1,3-Dichloropropene	464.9	50	500	0	93.0	80 - 120				
Trichloroethene	488.3	50	500	0	97.7	80 - 120				
Vinyl chloride	434	20	500	0	86.8	70 - 127				
Xylenes, Total	1421	150	1500	17.39	93.6	80 - 120				
Surr: 1,2-Dichloroethane-d4	509.7	50	500	0	102	70 - 125				
Surr: 4-Bromofluorobenzene	502.8	50	500	0	101	72 - 125				
Surr: Dibromofluoromethane	504.9	50	500	0	101	71 - 125				
Surr: Toluene-d8	500.7	50	500	0	100	75 - 125				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233224		Instrument: VOA6		Method: SW8260					
MSD		Sample ID: HS14050073-07MSD		Units: ug/L		Analysis Date: 06-May-2014 00:42			
Client ID: MW-101-0414		Run ID: VOA6_233224		SeqNo: 2824142		PrepDate:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	508.3	50	500	0	102	80 - 120	492.6	3.13	20
1,1,2,2-Tetrachloroethane	472.8	50	500	0	94.6	72 - 120	465.3	1.61	20
1,1,2-Trichloroethane	489.9	50	500	0	98.0	80 - 120	478.5	2.36	20
1,1-Dichloroethane	494	50	500	0	98.8	76 - 120	476.4	3.62	20
1,1-Dichloroethene	488.2	50	500	0	97.6	73 - 124	465.4	4.8	20
1,2,4-Trimethylbenzene	492.9	50	500	8.337	96.9	68 - 123	477.2	3.25	20
1,2-Dibromoethane	499.8	50	500	0	100.0	80 - 120	497.8	0.399	20
1,2-Dichloroethane	502.7	50	500	28.74	94.8	78 - 120	502	0.135	20
1,2-Dichloropropane	483.5	50	500	0	96.7	80 - 120	475.3	1.71	20
1,3,5-Trimethylbenzene	482.6	50	500	0	96.5	80 - 120	462.6	4.24	20
2-Butanone	916.5	100	1000	0	91.6	58 - 132	904.5	1.32	20
2-Hexanone	932.3	100	1000	31.61	90.1	61 - 130	930.6	0.185	20
4-Isopropyltoluene	494.7	50	500	0	98.9	79 - 120	472.9	4.51	20
4-Methyl-2-pentanone	957.6	100	1000	0	95.8	65 - 127	959.5	0.194	20
Acetone	767.1	100	1000	49.12	71.8	59 - 137	763.2	0.511	20
Benzene	1548	50	500	1062	97.0	73 - 121	1554	0.397	20
Bromodichloromethane	493.1	50	500	0	98.6	75 - 125	483	2.06	20
Bromoform	508.4	50	500	0	102	70 - 130	483.3	5.06	20
Bromomethane	493.8	50	500	0	98.8	60 - 145	413.4	17.7	20
Carbon disulfide	897.9	100	1000	0	89.8	68 - 141	863.9	3.85	20
Carbon tetrachloride	538.5	50	500	0	108	75 - 125	519.5	3.58	20
Chlorobenzene	477.4	50	500	0	95.5	80 - 120	468	1.98	20
Chloroethane	463.3	50	500	0	92.7	76 - 121	450.9	2.71	20
Chloroform	491.3	50	500	0	98.3	70 - 130	474.5	3.46	20
Chloromethane	375.1	50	500	0	75.0	67 - 123	363	3.25	20
cis-1,2-Dichloroethene	U	50	500	0	0	78 - 120	0	0	20 S
cis-1,3-Dichloropropene	535.7	50	500	0	107	80 - 120	523.2	2.36	20
Dibromochloromethane	510.8	50	500	0	102	80 - 120	492.2	3.72	20
Ethylbenzene	505.7	50	500	20.07	97.1	80 - 120	490.3	3.09	20
Isopropylbenzene	495.6	50	500	12.08	96.7	75 - 130	483.2	2.53	20
m,p-Xylene	982.3	100	1000	0	98.2	78 - 121	953.5	2.98	20
Methyl tert-butyl ether	594.4	50	500	91.48	101	70 - 125	592.6	0.307	20
Methylene chloride	497.5	100	500	0	99.5	65 - 133	479	3.79	20
Naphthalene	467	50	500	41.64	85.1	65 - 135	445.7	4.66	20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233224		Instrument: VOA6		Method: SW8260						
MSD		Sample ID: HS14050073-07MSD		Units: ug/L		Analysis Date: 06-May-2014 00:42				
Client ID: MW-101-0414		Run ID: VOA6_233224		SeqNo: 2824142		PrepDate:		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
n-Butylbenzene	506.8	50	500	0	101	77 - 120	475.2	6.43	20	
n-Propylbenzene	489.9	50	500	9.027	96.2	78 - 120	473.7	3.36	20	
o-Xylene	476.2	50	500	17.39	91.8	80 - 120	467.6	1.83	20	
sec-Butylbenzene	489.6	50	500	0	97.9	78 - 120	461.6	5.89	20	
Styrene	497.1	50	500	0	99.4	80 - 120	482.3	3.03	20	
Tetrachloroethene	502.2	50	500	0	100	79 - 120	492.6	1.94	20	
Toluene	496.8	50	500	0	99.4	80 - 120	482.6	2.91	20	
trans-1,2-Dichloroethene	507.2	50	500	0	101	78 - 120	483.5	4.78	20	
trans-1,3-Dichloropropene	468.7	50	500	0	93.7	80 - 120	464.9	0.805	20	
Trichloroethene	495.7	50	500	0	99.1	80 - 120	488.3	1.51	20	
Vinyl chloride	445.7	20	500	0	89.1	70 - 127	434	2.65	20	
Xylenes, Total	1459	150	1500	17.39	96.1	78 - 121	1421	2.61	20	
Surr: 1,2-Dichloroethane-d4	513	50	500	0	103	70 - 125	509.7	0.635	20	
Surr: 4-Bromofluorobenzene	504.8	50	500	0	101	72 - 125	502.8	0.393	20	
Surr: Dibromofluoromethane	511.8	50	500	0	102	71 - 125	504.9	1.34	20	
Surr: Toluene-d8	499.7	50	500	0	99.9	75 - 125	500.7	0.189	20	
The following samples were anayzed in this batch:										
		HS14050073-01		HS14050073-03		HS14050073-05		HS14050073-07		
		HS14050073-09		HS14050073-11		HS14050073-17		HS14050073-27		
		HS14050073-29		HS14050073-33						

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233275		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140506	Units: ug/L		Analysis Date: 06-May-2014 23:14					
Client ID:	Run ID: VOA6_233275	SeqNo: 2825076		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	U	5.0							
1,1,2,2-Tetrachloroethane	U	5.0							
1,1,2-Trichloroethane	U	5.0							
1,1-Dichloroethane	U	5.0							
1,1-Dichloroethene	U	5.0							
1,2,4-Trimethylbenzene	U	5.0							
1,2-Dibromoethane	U	5.0							
1,2-Dichloroethane	U	5.0							
1,2-Dichloropropane	U	5.0							
1,3,5-Trimethylbenzene	U	5.0							
2-Butanone	U	10							
2-Hexanone	U	10							
4-Isopropyltoluene	U	5.0							
4-Methyl-2-pentanone	U	10							
Acetone	U	10							
Benzene	U	5.0							
Bromodichloromethane	U	5.0							
Bromoform	U	5.0							
Bromomethane	U	5.0							
Carbon disulfide	U	10							
Carbon tetrachloride	U	5.0							
Chlorobenzene	U	5.0							
Chloroethane	U	5.0							
Chloroform	U	5.0							
Chloromethane	U	5.0							
cis-1,2-Dichloroethene	U	5.0							
cis-1,3-Dichloropropene	U	5.0							
Dibromochloromethane	U	5.0							
Ethylbenzene	U	5.0							
Isopropylbenzene	U	5.0							
m,p-Xylene	U	10							
Methyl tert-butyl ether	U	5.0							
Methylene chloride	U	10							
Naphthalene	U	5.0							

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233275		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140506	Units: ug/L		Analysis Date: 06-May-2014 23:14					
Client ID:	Run ID: VOA6_233275	SeqNo: 2825076		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
n-Butylbenzene	U	5.0							
n-Propylbenzene	U	5.0							
o-Xylene	U	5.0							
sec-Butylbenzene	U	5.0							
Styrene	U	5.0							
Tetrachloroethene	U	5.0							
Toluene	U	5.0							
trans-1,2-Dichloroethene	U	5.0							
trans-1,3-Dichloropropene	U	5.0							
Trichloroethene	U	5.0							
Vinyl chloride	U	2.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	56.26	5.0	50	0	113	70 - 125			
Surr: 4-Bromofluorobenzene	49.09	5.0	50	0	98.2	72 - 125			
Surr: Dibromofluoromethane	53.98	5.0	50	0	108	71 - 125			
Surr: Toluene-d8	50.16	5.0	50	0	100	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233275		Instrument: VOA6		Method: SW8260					
LCS	Sample ID: VLCSW-140506	Units: ug/L				Analysis Date: 06-May-2014 22:26			
Client ID:	Run ID: VOA6_233275	SeqNo: 2825075				PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	54.45	5.0	50	0	109	80 - 120			
1,1,2,2-Tetrachloroethane	51.23	5.0	50	0	102	72 - 120			
1,1,2-Trichloroethane	50.11	5.0	50	0	100	80 - 120			
1,1-Dichloroethane	52.96	5.0	50	0	106	76 - 120			
1,1-Dichloroethene	52.33	5.0	50	0	105	73 - 124			
1,2,4-Trimethylbenzene	51.54	5.0	50	0	103	68 - 123			
1,2-Dibromoethane	51.32	5.0	50	0	103	80 - 120			
1,2-Dichloroethane	53.07	5.0	50	0	106	78 - 120			
1,2-Dichloropropane	51.61	5.0	50	0	103	80 - 120			
1,3,5-Trimethylbenzene	50.23	5.0	50	0	100	80 - 120			
2-Butanone	108.3	10	100	0	108	58 - 132			
2-Hexanone	103.1	10	100	0	103	61 - 130			
4-Isopropyltoluene	51.02	5.0	50	0	102	79 - 120			
4-Methyl-2-pentanone	104.7	10	100	0	105	65 - 127			
Acetone	113.4	10	100	0	113	59 - 137			
Benzene	49.65	5.0	50	0	99.3	73 - 121			
Bromodichloromethane	52.09	5.0	50	0	104	75 - 125			
Bromoform	55.06	5.0	50	0	110	70 - 130			
Bromomethane	57.11	5.0	50	0	114	60 - 145			
Carbon disulfide	100.9	10	100	0	101	68 - 141			
Carbon tetrachloride	54.55	5.0	50	0	109	75 - 125			
Chlorobenzene	49.98	5.0	50	0	100.0	80 - 120			
Chloroethane	53.38	5.0	50	0	107	70 - 130			
Chloroform	52.92	5.0	50	0	106	70 - 130			
Chloromethane	51.57	5.0	50	0	103	67 - 123			
cis-1,2-Dichloroethene	54.5	5.0	50	0	109	78 - 120			
cis-1,3-Dichloropropene	56.25	5.0	50	0	112	80 - 120			
Dibromochloromethane	53.48	5.0	50	0	107	80 - 120			
Ethylbenzene	49.84	5.0	50	0	99.7	80 - 120			
Isopropylbenzene	50.19	5.0	50	0	100	75 - 130			
m,p-Xylene	100.2	10	100	0	100	78 - 121			
Methyl tert-butyl ether	55.46	5.0	50	0	111	70 - 125			
Methylene chloride	53.75	10	50	0	108	65 - 133			
Naphthalene	49.8	5.0	50	0	99.6	65 - 135			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233275		Instrument: VOA6		Method: SW8260	
LCS		Sample ID: VLCSW-140506		Units: ug/L	
Client ID:		Run ID: VOA6_233275		SeqNo: 2825075	
Analyte		Result		Analysis Date: 06-May-2014 22:26	
		PQL		PrepDate: DF: 1	
		SPK Val		SPK Ref Value %REC	
				Control Limit	
				RPD Ref Value %RPD	
				RPD Limit Qual	
n-Butylbenzene		53.26		77 - 120	
n-Propylbenzene		51.7		78 - 120	
o-Xylene		49.5		80 - 120	
sec-Butylbenzene		50.89		78 - 120	
Styrene		51.64		80 - 120	
Tetrachloroethene		48.49		79 - 120	
Toluene		51.02		80 - 120	
trans-1,2-Dichloroethene		55.03		78 - 120	
trans-1,3-Dichloropropene		49.11		80 - 120	
Trichloroethene		49.97		80 - 120	
Vinyl chloride		54.77		70 - 127	
Xylenes, Total		149.7		80 - 120	
Surr: 1,2-Dichloroethane-d4		54.43		70 - 125	
Surr: 4-Bromofluorobenzene		51.54		72 - 125	
Surr: Dibromofluoromethane		52.94		71 - 125	
Surr: Toluene-d8		50.79		75 - 125	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233275		Instrument: VOA6		Method: SW8260					
MS		Sample ID: HS14050073-31MS		Units: ug/L		Analysis Date: 07-May-2014 04:27			
Client ID: TEL-2-0414		Run ID: VOA6_233275		SeqNo: 2825089		PrepDate:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	539.1	50	500	0	108	80 - 120			
1,1,2,2-Tetrachloroethane	510.7	50	500	0	102	72 - 120			
1,1,2-Trichloroethane	517.9	50	500	0	104	80 - 120			
1,1-Dichloroethane	550	50	500	0	110	76 - 120			
1,1-Dichloroethene	527.6	50	500	0	106	73 - 124			
1,2,4-Trimethylbenzene	689.3	50	500	186.8	101	68 - 123			
1,2-Dibromoethane	527.5	50	500	0	106	80 - 120			
1,2-Dichloroethane	559.8	50	500	0	112	78 - 120			
1,2-Dichloropropane	527.5	50	500	0	106	80 - 120			
1,3,5-Trimethylbenzene	521.6	50	500	35.73	97.2	80 - 120			
2-Butanone	1106	100	1000	0	111	58 - 132			
2-Hexanone	1150	100	1000	0	115	61 - 130			
4-Isopropyltoluene	509.2	50	500	13.22	99.2	79 - 120			
4-Methyl-2-pentanone	1159	100	1000	0	116	65 - 127			
Acetone	953.9	100	1000	0	95.4	59 - 137			
Benzene	1733	50	500	1209	105	73 - 121			
Bromodichloromethane	515.5	50	500	0	103	75 - 125			
Bromoform	476.7	50	500	0	95.3	70 - 130			
Bromomethane	406.9	50	500	0	81.4	60 - 145			
Carbon disulfide	1046	100	1000	0	105	68 - 141			
Carbon tetrachloride	436.7	50	500	0	87.3	75 - 125			
Chlorobenzene	498.6	50	500	0	99.7	80 - 120			
Chloroethane	1032	50	500	0	206	70 - 130			S
Chloroform	511.4	50	500	0	102	70 - 130			
Chloromethane	442.9	50	500	0	88.6	67 - 123			
cis-1,2-Dichloroethene	559.5	50	500	0	112	78 - 120			
cis-1,3-Dichloropropene	530.5	50	500	0	106	80 - 120			
Dibromochloromethane	494.4	50	500	0	98.9	80 - 120			
Ethylbenzene	512.7	50	500	17.77	99.0	80 - 120			
Isopropylbenzene	554.5	50	500	50.79	101	75 - 130			
m,p-Xylene	1246	100	1000	223.5	102	78 - 121			
Methyl tert-butyl ether	566.6	50	500	11.22	111	70 - 125			
Methylene chloride	559.6	100	500	0	112	65 - 133			
Naphthalene	539	50	500	63.15	95.2	65 - 135			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233275		Instrument: VOA6		Method: SW8260					
MS		Sample ID: HS14050073-31MS		Units: ug/L		Analysis Date: 07-May-2014 04:27			
Client ID: TEL-2-0414		Run ID: VOA6_233275		SeqNo: 2825089		PrepDate:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
n-Butylbenzene	532.5	50	500	19.35	103	77 - 120			
n-Propylbenzene	558	50	500	64.45	98.7	78 - 120			
o-Xylene	508.9	50	500	22.1	97.4	80 - 120			
sec-Butylbenzene	506	50	500	15.59	98.1	78 - 120			
Styrene	509.2	50	500	0	102	80 - 120			
Tetrachloroethene	521.7	50	500	0	104	79 - 120			
Toluene	559.4	50	500	44.4	103	80 - 120			
trans-1,2-Dichloroethene	553.8	50	500	0	111	78 - 120			
trans-1,3-Dichloropropene	440.9	50	500	0	88.2	80 - 120			
Trichloroethene	514.7	50	500	0	103	80 - 120			
Vinyl chloride	500.7	20	500	0	100	70 - 127			
Xylenes, Total	1754	150	1500	245.6	101	80 - 120			
Surr: 1,2-Dichloroethane-d4	539.8	50	500	0	108	70 - 125			
Surr: 4-Bromofluorobenzene	515.8	50	500	0	103	72 - 125			
Surr: Dibromofluoromethane	507.8	50	500	0	102	71 - 125			
Surr: Toluene-d8	505.9	50	500	0	101	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233275		Instrument: VOA6		Method: SW8260					
MSD		Sample ID: HS14050073-31MSD		Units: ug/L		Analysis Date: 07-May-2014 04:51			
Client ID: TEL-2-0414		Run ID: VOA6_233275		SeqNo: 2825090		PrepDate:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	534.6	50	500	0	107	80 - 120	539.1	0.829	20
1,1,2,2-Tetrachloroethane	519.2	50	500	0	104	72 - 120	510.7	1.65	20
1,1,2-Trichloroethane	525.1	50	500	0	105	80 - 120	517.9	1.36	20
1,1-Dichloroethane	546	50	500	0	109	76 - 120	550	0.725	20
1,1-Dichloroethene	522.2	50	500	0	104	73 - 124	527.6	1.03	20
1,2,4-Trimethylbenzene	686.5	50	500	186.8	99.9	68 - 123	689.3	0.415	20
1,2-Dibromoethane	536.4	50	500	0	107	80 - 120	527.5	1.67	20
1,2-Dichloroethane	568.4	50	500	0	114	78 - 120	559.8	1.53	20
1,2-Dichloropropane	528	50	500	0	106	80 - 120	527.5	0.101	20
1,3,5-Trimethylbenzene	524.3	50	500	35.73	97.7	80 - 120	521.6	0.512	20
2-Butanone	1120	100	1000	0	112	58 - 132	1106	1.24	20
2-Hexanone	1178	100	1000	0	118	61 - 130	1150	2.45	20
4-Isopropyltoluene	517.9	50	500	13.22	101	79 - 120	509.2	1.7	20
4-Methyl-2-pentanone	1171	100	1000	0	117	65 - 127	1159	1.06	20
Acetone	936	100	1000	0	93.6	59 - 137	953.9	1.9	20
Benzene	1715	50	500	1209	101	73 - 121	1733	1.02	20
Bromodichloromethane	519.8	50	500	0	104	75 - 125	515.5	0.837	20
Bromoform	495.4	50	500	0	99.1	70 - 130	476.7	3.85	20
Bromomethane	422.3	50	500	0	84.5	60 - 145	406.9	3.71	20
Carbon disulfide	1056	100	1000	0	106	68 - 141	1046	1	20
Carbon tetrachloride	441.3	50	500	0	88.3	75 - 125	436.7	1.05	20
Chlorobenzene	502.3	50	500	0	100	80 - 120	498.6	0.733	20
Chloroethane	1018	50	500	0	204	76 - 121	1032	1.3	20 S
Chloroform	510.1	50	500	0	102	70 - 130	511.4	0.252	20
Chloromethane	445.8	50	500	0	89.2	67 - 123	442.9	0.65	20
cis-1,2-Dichloroethene	554.2	50	500	0	111	78 - 120	559.5	0.96	20
cis-1,3-Dichloropropene	536.7	50	500	0	107	80 - 120	530.5	1.16	20
Dibromochloromethane	505	50	500	0	101	80 - 120	494.4	2.12	20
Ethylbenzene	512.8	50	500	17.77	99.0	80 - 120	512.7	0.0277	20
Isopropylbenzene	551	50	500	50.79	100	75 - 130	554.5	0.624	20
m,p-Xylene	1223	100	1000	223.5	99.9	78 - 121	1246	1.83	20
Methyl tert-butyl ether	568.6	50	500	11.22	111	70 - 125	566.6	0.346	20
Methylene chloride	557.6	100	500	0	112	65 - 133	559.6	0.363	20
Naphthalene	552.1	50	500	63.15	97.8	65 - 135	539	2.4	20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233275		Instrument: VOA6		Method: SW8260						
MSD		Sample ID: HS14050073-31MSD		Units: ug/L		Analysis Date: 07-May-2014 04:51				
Client ID: TEL-2-0414		Run ID: VOA6_233275		SeqNo: 2825090		PrepDate:		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
n-Butylbenzene	539.7	50	500	19.35	104	77 - 120	532.5	1.35	20	
n-Propylbenzene	560	50	500	64.45	99.1	78 - 120	558	0.351	20	
o-Xylene	516.7	50	500	22.1	98.9	80 - 120	508.9	1.51	20	
sec-Butylbenzene	510.5	50	500	15.59	99.0	78 - 120	506	0.894	20	
Styrene	519.4	50	500	0	104	80 - 120	509.2	2	20	
Tetrachloroethene	524.6	50	500	0	105	79 - 120	521.7	0.54	20	
Toluene	557.4	50	500	44.4	103	80 - 120	559.4	0.346	20	
trans-1,2-Dichloroethene	558.8	50	500	0	112	78 - 120	553.8	0.894	20	
trans-1,3-Dichloropropene	454.5	50	500	0	90.9	80 - 120	440.9	3.05	20	
Trichloroethene	520.1	50	500	0	104	80 - 120	514.7	1.04	20	
Vinyl chloride	499.2	20	500	0	99.8	70 - 127	500.7	0.288	20	
Xylenes, Total	1740	150	1500	245.6	99.6	78 - 121	1754	0.851	20	
Surr: 1,2-Dichloroethane-d4	546.9	50	500	0	109	70 - 125	539.8	1.31	20	
Surr: 4-Bromofluorobenzene	516.1	50	500	0	103	72 - 125	515.8	0.0659	20	
Surr: Dibromofluoromethane	510	50	500	0	102	71 - 125	507.8	0.429	20	
Surr: Toluene-d8	509.6	50	500	0	102	75 - 125	505.9	0.729	20	
The following samples were analyzed in this batch:										
HS14050073-21		HS14050073-23		HS14050073-25		HS14050073-31				
HS14050073-35		HS14050073-37		HS14050073-39		HS14050073-41				
HS14050073-43		HS14050073-45		HS14050073-47		HS14050073-49				
HS14050073-51		HS14050073-55		HS14050073-57						

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233364		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140508	Units: ug/L		Analysis Date: 08-May-2014 11:48					
Client ID:	Run ID: VOA6_233364	SeqNo: 2827264		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	U	5.0							
1,1,2,2-Tetrachloroethane	U	5.0							
1,1,2-Trichloroethane	U	5.0							
1,1-Dichloroethane	U	5.0							
1,1-Dichloroethene	U	5.0							
1,2,4-Trimethylbenzene	U	5.0							
1,2-Dibromoethane	U	5.0							
1,2-Dichloroethane	U	5.0							
1,2-Dichloropropane	U	5.0							
1,3,5-Trimethylbenzene	U	5.0							
2-Butanone	U	10							
2-Hexanone	U	10							
4-Isopropyltoluene	U	5.0							
4-Methyl-2-pentanone	U	10							
Acetone	U	10							
Benzene	U	5.0							
Bromodichloromethane	U	5.0							
Bromoform	U	5.0							
Bromomethane	U	5.0							
Carbon disulfide	U	10							
Carbon tetrachloride	U	5.0							
Chlorobenzene	U	5.0							
Chloroethane	U	5.0							
Chloroform	U	5.0							
Chloromethane	U	5.0							
cis-1,2-Dichloroethene	U	5.0							
cis-1,3-Dichloropropene	U	5.0							
Dibromochloromethane	U	5.0							
Ethylbenzene	U	5.0							
Isopropylbenzene	U	5.0							
m,p-Xylene	U	10							
Methyl tert-butyl ether	U	5.0							
Methylene chloride	U	10							
Naphthalene	U	5.0							

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233364		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-140508	Units: ug/L		Analysis Date: 08-May-2014 11:48					
Client ID:	Run ID: VOA6_233364	SeqNo: 2827264		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
n-Butylbenzene	U	5.0							
n-Propylbenzene	U	5.0							
o-Xylene	U	5.0							
sec-Butylbenzene	U	5.0							
Styrene	U	5.0							
Tetrachloroethene	U	5.0							
Toluene	U	5.0							
trans-1,2-Dichloroethene	U	5.0							
trans-1,3-Dichloropropene	U	5.0							
Trichloroethene	U	5.0							
Vinyl chloride	U	2.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	58.52	5.0	50	0	117	70 - 125			
Surr: 4-Bromofluorobenzene	48.77	5.0	50	0	97.5	72 - 125			
Surr: Dibromofluoromethane	55.53	5.0	50	0	111	71 - 125			
Surr: Toluene-d8	49.84	5.0	50	0	99.7	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233364		Instrument: VOA6		Method: SW8260						
LCS		Sample ID: VLCSW-140507		Units: ug/L		Analysis Date: 08-May-2014 10:36				
Client ID:		Run ID: VOA6_233364		SeqNo: 2827263		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	54.72	5.0	50	0	109	80 - 120				
1,1,2,2-Tetrachloroethane	50.44	5.0	50	0	101	72 - 120				
1,1,2-Trichloroethane	49.98	5.0	50	0	100.0	80 - 120				
1,1-Dichloroethane	53.34	5.0	50	0	107	76 - 120				
1,1-Dichloroethene	50.89	5.0	50	0	102	73 - 124				
1,2,4-Trimethylbenzene	50.13	5.0	50	0	100	68 - 123				
1,2-Dibromoethane	50.37	5.0	50	0	101	80 - 120				
1,2-Dichloroethane	51.01	5.0	50	0	102	78 - 120				
1,2-Dichloropropane	51.35	5.0	50	0	103	80 - 120				
1,3,5-Trimethylbenzene	48.99	5.0	50	0	98.0	80 - 120				
2-Butanone	108	10	100	0	108	58 - 132				
2-Hexanone	102.5	10	100	0	102	61 - 130				
4-Isopropyltoluene	49.69	5.0	50	0	99.4	79 - 120				
4-Methyl-2-pentanone	102.8	10	100	0	103	65 - 127				
Acetone	100.8	10	100	0	101	59 - 137				
Benzene	49.26	5.0	50	0	98.5	73 - 121				
Bromodichloromethane	52.98	5.0	50	0	106	75 - 125				
Bromoform	56.72	5.0	50	0	113	70 - 130				
Bromomethane	63.65	5.0	50	0	127	60 - 145				
Carbon disulfide	98.98	10	100	0	99.0	68 - 141				
Carbon tetrachloride	57.46	5.0	50	0	115	75 - 125				
Chlorobenzene	49.48	5.0	50	0	99.0	80 - 120				
Chloroethane	52.76	5.0	50	0	106	70 - 130				
Chloroform	53.53	5.0	50	0	107	70 - 130				
Chloromethane	52.51	5.0	50	0	105	67 - 123				
cis-1,2-Dichloroethene	54.4	5.0	50	0	109	78 - 120				
cis-1,3-Dichloropropene	57.18	5.0	50	0	114	80 - 120				
Dibromochloromethane	54.65	5.0	50	0	109	80 - 120				
Ethylbenzene	49.13	5.0	50	0	98.3	80 - 120				
Isopropylbenzene	49.5	5.0	50	0	99.0	75 - 130				
m,p-Xylene	98.07	10	100	0	98.1	78 - 121				
Methyl tert-butyl ether	55.49	5.0	50	0	111	70 - 125				
Methylene chloride	54.52	10	50	0	109	65 - 133				
Naphthalene	46.78	5.0	50	0	93.6	65 - 135				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233364		Instrument: VOA6		Method: SW8260	
LCS		Sample ID: VLCSW-140507		Units: ug/L	
Client ID:		Run ID: VOA6_233364		SeqNo: 2827263	
Analyte		Result		Analysis Date: 08-May-2014 10:36	
		PQL		PrepDate: DF: 1	
		SPK Val		SPK Ref Value %REC	
				Control Limit	
				RPD Ref Value %RPD	
				RPD Limit Qual	
n-Butylbenzene		51.97		77 - 120	
n-Propylbenzene		50.75		78 - 120	
o-Xylene		48.38		80 - 120	
sec-Butylbenzene		49.19		78 - 120	
Styrene		50.16		80 - 120	
Tetrachloroethene		47.54		79 - 120	
Toluene		50.56		80 - 120	
trans-1,2-Dichloroethene		54.95		78 - 120	
trans-1,3-Dichloropropene		49.79		80 - 120	
Trichloroethene		49.52		80 - 120	
Vinyl chloride		54.84		70 - 127	
Xylenes, Total		146.4		80 - 120	
Surr: 1,2-Dichloroethane-d4		54.72		70 - 125	
Surr: 4-Bromofluorobenzene		50.76		72 - 125	
Surr: Dibromofluoromethane		53.7		71 - 125	
Surr: Toluene-d8		50.35		75 - 125	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233364		Instrument: VOA6		Method: SW8260	
MS	Sample ID: HS14050052-01MS	Units: ug/L		Analysis Date: 08-May-2014 13:01	
Client ID:	Run ID: VOA6_233364	SeqNo: 2827267		PrepDate:	DF: 200
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
1,1,1-Trichloroethane	10730	1000	10000	0 107	80 - 120
1,1,2,2-Tetrachloroethane	9807	1000	10000	0 98.1	72 - 120
1,1,2-Trichloroethane	10040	1000	10000	0 100	80 - 120
1,1-Dichloroethane	10790	1000	10000	0 108	76 - 120
1,1-Dichloroethene	10320	1000	10000	0 103	73 - 124
1,2,4-Trimethylbenzene	9933	1000	10000	232.5 97.0	68 - 123
1,2-Dibromoethane	10360	1000	10000	0 104	80 - 120
1,2-Dichloroethane	10210	1000	10000	162.3 100	78 - 120
1,2-Dichloropropane	10300	1000	10000	0 103	80 - 120
1,3,5-Trimethylbenzene	9662	1000	10000	128.8 95.3	80 - 120
2-Butanone	31910	2000	20000	9722 111	58 - 132
2-Hexanone	21760	2000	20000	422.2 107	61 - 130
4-Isopropyltoluene	10010	1000	10000	212.7 97.9	79 - 120
4-Methyl-2-pentanone	22180	2000	20000	486.3 108	65 - 127
Acetone	64280	2000	20000	44740 97.7	59 - 137
Benzene	16290	1000	10000	7008 92.8	73 - 121
Bromodichloromethane	10400	1000	10000	0 104	75 - 125
Bromoform	10830	1000	10000	0 108	70 - 130
Bromomethane	12490	1000	10000	0 125	60 - 145
Carbon disulfide	19430	2000	20000	0 97.1	68 - 141
Carbon tetrachloride	10990	1000	10000	0 110	75 - 125
Chlorobenzene	9778	1000	10000	0 97.8	80 - 120
Chloroethane	10230	1000	10000	0 102	70 - 130
Chloroform	10700	1000	10000	0 107	70 - 130
Chloromethane	9228	1000	10000	0 92.3	67 - 123
cis-1,2-Dichloroethene	10590	1000	10000	0 106	78 - 120
cis-1,3-Dichloropropene	11320	1000	10000	0 113	80 - 120
Dibromochloromethane	10570	1000	10000	0 106	80 - 120
Ethylbenzene	9777	1000	10000	119.9 96.6	80 - 120
Isopropylbenzene	9883	1000	10000	102.9 97.8	75 - 130
m,p-Xylene	19700	2000	20000	278.3 97.1	78 - 121
Methyl tert-butyl ether	104600	1000	10000	97930 67.1	70 - 125 SEO
Methylene chloride	11190	2000	10000	0 112	65 - 133
Naphthalene	9590	1000	10000	1262 83.3	65 - 135

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233364		Instrument: VOA6		Method: SW8260					
MS		Sample ID: HS14050052-01MS		Units: ug/L		Analysis Date: 08-May-2014 13:01			
Client ID:		Run ID: VOA6_233364		SeqNo: 2827267		PrepDate:		DF: 200	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
n-Butylbenzene	10630	1000	10000	317	103	77 - 120			
n-Propylbenzene	9747	1000	10000	123.9	96.2	78 - 120			
o-Xylene	9731	1000	10000	124	96.1	80 - 120			
sec-Butylbenzene	9830	1000	10000	241.4	95.9	78 - 120			
Styrene	13210	1000	10000	3183	100	80 - 120			
Tetrachloroethene	9524	1000	10000	0	95.2	79 - 120			
Toluene	10950	1000	10000	901.4	100	80 - 120			
trans-1,2-Dichloroethene	10640	1000	10000	0	106	78 - 120			
trans-1,3-Dichloropropene	9819	1000	10000	0	98.2	80 - 120			
Trichloroethene	9766	1000	10000	0	97.7	80 - 120			
Vinyl chloride	10080	400	10000	0	101	70 - 127			
Xylenes, Total	29430	3000	30000	402.3	96.8	80 - 120			
Surr: 1,2-Dichloroethane-d4	10870	1000	10000	0	109	70 - 125			
Surr: 4-Bromofluorobenzene	10460	1000	10000	0	105	72 - 125			
Surr: Dibromofluoromethane	10700	1000	10000	0	107	71 - 125			
Surr: Toluene-d8	10060	1000	10000	0	101	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233364		Instrument: VOA6		Method: SW8260						
MSD		Sample ID: HS14050052-01MSD		Units: ug/L		Analysis Date: 08-May-2014 13:25				
Client ID:		Run ID: VOA6_233364		SeqNo: 2827268		PrepDate:		DF: 200		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	11040	1000	10000	0	110	80 - 120	10730	2.86	20	
1,1,2,2-Tetrachloroethane	10490	1000	10000	0	105	72 - 120	9807	6.73	20	
1,1,2-Trichloroethane	10270	1000	10000	0	103	80 - 120	10040	2.23	20	
1,1-Dichloroethane	11010	1000	10000	0	110	76 - 120	10790	2.07	20	
1,1-Dichloroethene	10580	1000	10000	0	106	73 - 124	10320	2.42	20	
1,2,4-Trimethylbenzene	10660	1000	10000	232.5	104	68 - 123	9933	7.05	20	
1,2-Dibromoethane	10570	1000	10000	0	106	80 - 120	10360	2	20	
1,2-Dichloroethane	10490	1000	10000	162.3	103	78 - 120	10210	2.7	20	
1,2-Dichloropropane	10590	1000	10000	0	106	80 - 120	10300	2.76	20	
1,3,5-Trimethylbenzene	10170	1000	10000	128.8	100	80 - 120	9662	5.16	20	
2-Butanone	31460	2000	20000	9722	109	58 - 132	31910	1.44	20	
2-Hexanone	22520	2000	20000	422.2	111	61 - 130	21760	3.43	20	
4-Isopropyltoluene	10450	1000	10000	212.7	102	79 - 120	10010	4.33	20	
4-Methyl-2-pentanone	22800	2000	20000	486.3	112	65 - 127	22180	2.75	20	
Acetone	59570	2000	20000	44740	74.1	59 - 137	64280	7.61	20	
Benzene	16820	1000	10000	7008	98.1	73 - 121	16290	3.19	20	
Bromodichloromethane	10770	1000	10000	0	108	75 - 125	10400	3.57	20	
Bromoform	11280	1000	10000	0	113	70 - 130	10830	4.07	20	
Bromomethane	12890	1000	10000	0	129	60 - 145	12490	3.17	20	
Carbon disulfide	19950	2000	20000	0	99.8	68 - 141	19430	2.66	20	
Carbon tetrachloride	11610	1000	10000	0	116	75 - 125	10990	5.48	20	
Chlorobenzene	10090	1000	10000	0	101	80 - 120	9778	3.11	20	
Chloroethane	10620	1000	10000	0	106	76 - 121	10230	3.76	20	
Chloroform	10860	1000	10000	0	109	70 - 130	10700	1.46	20	
Chloromethane	9667	1000	10000	0	96.7	67 - 123	9228	4.65	20	
cis-1,2-Dichloroethene	11090	1000	10000	0	111	78 - 120	10590	4.59	20	
cis-1,3-Dichloropropene	11600	1000	10000	0	116	80 - 120	11320	2.49	20	
Dibromochloromethane	10880	1000	10000	0	109	80 - 120	10570	2.92	20	
Ethylbenzene	10110	1000	10000	119.9	99.9	80 - 120	9777	3.3	20	
Isopropylbenzene	10230	1000	10000	102.9	101	75 - 130	9883	3.44	20	
m,p-Xylene	20270	2000	20000	278.3	100.0	78 - 121	19700	2.87	20	
Methyl tert-butyl ether	105200	1000	10000	97930	72.5	70 - 125	104600	0.518	20	EO
Methylene chloride	11120	2000	10000	0	111	65 - 133	11190	0.674	20	
Naphthalene	10480	1000	10000	1262	92.1	65 - 135	9590	8.83	20	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233364		Instrument: VOA6		Method: SW8260						
MSD		Sample ID: HS14050052-01MSD		Units: ug/L		Analysis Date: 08-May-2014 13:25				
Client ID:		Run ID: VOA6_233364		SeqNo: 2827268		PrepDate:		DF: 200		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
n-Butylbenzene	11080	1000	10000	317	108	77 - 120	10630	4.13	20	
n-Propylbenzene	10120	1000	10000	123.9	99.9	78 - 120	9747	3.73	20	
o-Xylene	10230	1000	10000	124	101	80 - 120	9731	5.04	20	
sec-Butylbenzene	10420	1000	10000	241.4	102	78 - 120	9830	5.84	20	
Styrene	13590	1000	10000	3183	104	80 - 120	13210	2.81	20	
Tetrachloroethene	9948	1000	10000	0	99.5	79 - 120	9524	4.35	20	
Toluene	11190	1000	10000	901.4	103	80 - 120	10950	2.15	20	
trans-1,2-Dichloroethene	11220	1000	10000	0	112	78 - 120	10640	5.39	20	
trans-1,3-Dichloropropene	10140	1000	10000	0	101	80 - 120	9819	3.26	20	
Trichloroethene	9968	1000	10000	0	99.7	80 - 120	9766	2.06	20	
Vinyl chloride	10460	400	10000	0	105	70 - 127	10080	3.65	20	
Xylenes, Total	30500	3000	30000	402.3	100	78 - 121	29430	3.59	20	
Surr: 1,2-Dichloroethane-d4	10760	1000	10000	0	108	70 - 125	10870	1.04	20	
Surr: 4-Bromofluorobenzene	10280	1000	10000	0	103	72 - 125	10460	1.7	20	
Surr: Dibromofluoromethane	10620	1000	10000	0	106	71 - 125	10700	0.718	20	
Surr: Toluene-d8	9992	1000	10000	0	99.9	75 - 125	10060	0.724	20	
The following samples were analyzed in this batch:										
HS14050073-13			HS14050073-53							

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233368		Instrument: VOA1		Method: SW8260					
MBLK	Sample ID: VBLKW-140508	Units: ug/L		Analysis Date: 08-May-2014 17:51					
Client ID:	Run ID: VOA1_233368	SeqNo: 2827318		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	U	5.0							
1,1,2,2-Tetrachloroethane	U	5.0							
1,1,2-Trichloroethane	U	5.0							
1,1-Dichloroethane	U	5.0							
1,1-Dichloroethene	U	5.0							
1,2,4-Trimethylbenzene	U	5.0							
1,2-Dibromoethane	U	5.0							
1,2-Dichloroethane	U	5.0							
1,2-Dichloropropane	U	5.0							
1,3,5-Trimethylbenzene	U	5.0							
2-Butanone	U	10							
2-Hexanone	U	10							
4-Isopropyltoluene	U	5.0							
4-Methyl-2-pentanone	U	10							
Acetone	U	10							
Benzene	U	5.0							
Bromodichloromethane	U	5.0							
Bromoform	U	5.0							
Bromomethane	U	5.0							
Carbon disulfide	U	10							
Carbon tetrachloride	U	5.0							
Chlorobenzene	U	5.0							
Chloroethane	U	5.0							
Chloroform	U	5.0							
Chloromethane	U	5.0							
cis-1,2-Dichloroethene	U	5.0							
cis-1,3-Dichloropropene	U	5.0							
Dibromochloromethane	U	5.0							
Ethylbenzene	U	5.0							
Isopropylbenzene	U	5.0							
m,p-Xylene	U	10							
Methyl tert-butyl ether	U	5.0							
Methylene chloride	U	10							
Naphthalene	U	5.0							

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233368		Instrument: VOA1		Method: SW8260					
MBLK	Sample ID: VBLKW-140508	Units: ug/L		Analysis Date: 08-May-2014 17:51					
Client ID:	Run ID: VOA1_233368	SeqNo: 2827318		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
n-Butylbenzene	U	5.0							
n-Propylbenzene	U	5.0							
o-Xylene	U	5.0							
sec-Butylbenzene	U	5.0							
Styrene	U	5.0							
Tetrachloroethene	U	5.0							
Toluene	U	5.0							
trans-1,2-Dichloroethene	U	5.0							
trans-1,3-Dichloropropene	U	5.0							
Trichloroethene	U	5.0							
Vinyl chloride	U	2.0							
Xylenes, Total	U	15							
Surr: 1,2-Dichloroethane-d4	50.91	5.0	50	0	102	70 - 125			
Surr: 4-Bromofluorobenzene	49.72	5.0	50	0	99.4	72 - 125			
Surr: Dibromofluoromethane	51.1	5.0	50	0	102	71 - 125			
Surr: Toluene-d8	48.43	5.0	50	0	96.9	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233368		Instrument: VOA1		Method: SW8260						
LCS	Sample ID: VLCSW-140508	Units: ug/L			Analysis Date: 08-May-2014 16:35					
Client ID:	Run ID: VOA1_233368	SeqNo: 2827317			PrepDate:			DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50.2	5.0	50	0	100	80 - 120				
1,1,2,2-Tetrachloroethane	46.83	5.0	50	0	93.7	72 - 120				
1,1,2-Trichloroethane	46.06	5.0	50	0	92.1	80 - 120				
1,1-Dichloroethane	46.48	5.0	50	0	93.0	76 - 120				
1,1-Dichloroethene	46.24	5.0	50	0	92.5	73 - 124				
1,2,4-Trimethylbenzene	48.2	5.0	50	0	96.4	68 - 123				
1,2-Dibromoethane	46.07	5.0	50	0	92.1	80 - 120				
1,2-Dichloroethane	46.12	5.0	50	0	92.2	78 - 120				
1,2-Dichloropropane	50.42	5.0	50	0	101	80 - 120				
1,3,5-Trimethylbenzene	49.29	5.0	50	0	98.6	80 - 120				
2-Butanone	117.4	10	100	0	117	58 - 132				
2-Hexanone	106.9	10	100	0	107	61 - 130				
4-Isopropyltoluene	44.98	5.0	50	0	90.0	79 - 120				
4-Methyl-2-pentanone	107.5	10	100	0	108	65 - 127				
Acetone	115.9	10	100	0	116	59 - 137				
Benzene	51.35	5.0	50	0	103	73 - 121				
Bromodichloromethane	48.95	5.0	50	0	97.9	75 - 125				
Bromoform	46.95	5.0	50	0	93.9	70 - 130				
Bromomethane	45	5.0	50	0	90.0	60 - 145				
Carbon disulfide	94.58	10	100	0	94.6	68 - 141				
Carbon tetrachloride	46.78	5.0	50	0	93.6	75 - 125				
Chlorobenzene	44.64	5.0	50	0	89.3	80 - 120				
Chloroethane	51.51	5.0	50	0	103	70 - 130				
Chloroform	50.24	5.0	50	0	100	70 - 130				
Chloromethane	42.51	5.0	50	0	85.0	67 - 123				
cis-1,2-Dichloroethene	51.35	5.0	50	0	103	78 - 120				
cis-1,3-Dichloropropene	57.68	5.0	50	0	115	80 - 120				
Dibromochloromethane	45.63	5.0	50	0	91.3	80 - 120				
Ethylbenzene	47.18	5.0	50	0	94.4	80 - 120				
Isopropylbenzene	45.69	5.0	50	0	91.4	75 - 130				
m,p-Xylene	96.46	10	100	0	96.5	78 - 121				
Methyl tert-butyl ether	58.33	5.0	50	0	117	70 - 125				
Methylene chloride	54.69	10	50	0	109	65 - 133				
Naphthalene	46.33	5.0	50	0	92.7	65 - 135				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233368		Instrument: VOA1		Method: SW8260	
LCS		Sample ID: VLCSW-140508		Units: ug/L	
Client ID:		Run ID: VOA1_233368		SeqNo: 2827317	
Analyte		Result		Analysis Date: 08-May-2014 16:35	
		PQL		PrepDate: DF: 1	
		SPK Val		SPK Ref Value %REC	
				Control Limit	
				RPD Ref Value %RPD	
				RPD Limit Qual	
n-Butylbenzene		48.36		50 0 96.7 77 - 120	
n-Propylbenzene		50.12		50 0 100 78 - 120	
o-Xylene		48.91		50 0 97.8 80 - 120	
sec-Butylbenzene		48.71		50 0 97.4 78 - 120	
Styrene		48.98		50 0 98.0 80 - 120	
Tetrachloroethene		43.25		50 0 86.5 79 - 120	
Toluene		46.72		50 0 93.4 80 - 120	
trans-1,2-Dichloroethene		47.61		50 0 95.2 78 - 120	
trans-1,3-Dichloropropene		59.26		50 0 119 80 - 120	
Trichloroethene		49.64		50 0 99.3 80 - 120	
Vinyl chloride		43.42		50 0 86.8 70 - 127	
Xylenes, Total		145.4		15 0 96.9 80 - 120	
Surr: 1,2-Dichloroethane-d4		48.6		50 0 97.2 70 - 125	
Surr: 4-Bromofluorobenzene		50.41		50 0 101 72 - 125	
Surr: Dibromofluoromethane		52.31		50 0 105 71 - 125	
Surr: Toluene-d8		47.47		50 0 94.9 75 - 125	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233368		Instrument: VOA1		Method: SW8260					
MS		Sample ID: HS14050073-15MS		Units: ug/L		Analysis Date: 08-May-2014 21:38			
Client ID: MW-107-0414		Run ID: VOA1_233368		SeqNo: 2827322		PrepDate:		DF: 100	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,1,1-Trichloroethane	4697	500	5000	0	93.9	80 - 120			
1,1,2,2-Tetrachloroethane	4700	500	5000	0	94.0	72 - 120			
1,1,2-Trichloroethane	4711	500	5000	0	94.2	80 - 120			
1,1-Dichloroethane	4361	500	5000	0	87.2	76 - 120			
1,1-Dichloroethene	4430	500	5000	0	88.6	73 - 124			
1,2,4-Trimethylbenzene	4731	500	5000	35.87	93.9	68 - 123			
1,2-Dibromoethane	4752	500	5000	0	95.0	80 - 120			
1,2-Dichloroethane	4547	500	5000	0	90.9	78 - 120			
1,2-Dichloropropane	4929	500	5000	0	98.6	80 - 120			
1,3,5-Trimethylbenzene	4669	500	5000	36.32	92.6	80 - 120			
2-Butanone	10610	1000	10000	0	106	58 - 132			
2-Hexanone	10740	1000	10000	0	107	61 - 130			
4-Isopropyltoluene	4384	500	5000	0	87.7	79 - 120			
4-Methyl-2-pentanone	10910	1000	10000	0	109	65 - 127			
Acetone	10350	1000	10000	0	104	59 - 137			
Benzene	10840	500	5000	6964	77.5	73 - 121			
Bromodichloromethane	4766	500	5000	0	95.3	75 - 125			
Bromoform	4736	500	5000	0	94.7	70 - 130			
Bromomethane	2542	500	5000	0	50.8	60 - 145			S
Carbon disulfide	8990	1000	10000	0	89.9	68 - 141			
Carbon tetrachloride	4368	500	5000	0	87.4	75 - 125			
Chlorobenzene	4519	500	5000	0	90.4	80 - 120			
Chloroethane	6031	500	5000	0	121	70 - 130			
Chloroform	4762	500	5000	0	95.2	70 - 130			
Chloromethane	3777	500	5000	0	75.5	67 - 123			
cis-1,2-Dichloroethene	5054	500	5000	0	101	78 - 120			
cis-1,3-Dichloropropene	5374	500	5000	0	107	80 - 120			
Dibromochloromethane	4797	500	5000	0	95.9	80 - 120			
Ethylbenzene	5017	500	5000	68.58	99.0	80 - 120			
Isopropylbenzene	4785	500	5000	0	95.7	75 - 130			
m,p-Xylene	9891	1000	10000	184.7	97.1	78 - 121			
Methyl tert-butyl ether	5043	500	5000	1603	68.8	70 - 125			S
Methylene chloride	5020	1000	5000	0	100	65 - 133			
Naphthalene	4833	500	5000	197.5	92.7	65 - 135			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233368		Instrument: VOA1		Method: SW8260					
MS		Sample ID: HS14050073-15MS		Units: ug/L		Analysis Date: 08-May-2014 21:38			
Client ID: MW-107-0414		Run ID: VOA1_233368		SeqNo: 2827322		PrepDate:		DF: 100	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
n-Butylbenzene	4433	500	5000	103.6	86.6	77 - 120			
n-Propylbenzene	4859	500	5000	0	97.2	78 - 120			
o-Xylene	4865	500	5000	0	97.3	80 - 120			
sec-Butylbenzene	4832	500	5000	0	96.6	78 - 120			
Styrene	4983	500	5000	0	99.7	80 - 120			
Tetrachloroethene	4160	500	5000	0	83.2	79 - 120			
Toluene	4906	500	5000	30.09	97.5	80 - 120			
trans-1,2-Dichloroethene	4530	500	5000	0	90.6	78 - 120			
trans-1,3-Dichloropropene	5395	500	5000	0	108	80 - 120			
Trichloroethene	4791	500	5000	0	95.8	80 - 120			
Vinyl chloride	4360	200	5000	0	87.2	70 - 127			
Xylenes, Total	14760	1500	15000	184.7	97.1	80 - 120			
Surr: 1,2-Dichloroethane-d4	4564	500	5000	0	91.3	70 - 125			
Surr: 4-Bromofluorobenzene	5158	500	5000	0	103	72 - 125			
Surr: Dibromofluoromethane	5022	500	5000	0	100	71 - 125			
Surr: Toluene-d8	4951	500	5000	0	99.0	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233368		Instrument: VOA1		Method: SW8260						
MSD		Sample ID: HS14050073-15MSD		Units: ug/L		Analysis Date: 08-May-2014 22:03				
Client ID: MW-107-0414		Run ID: VOA1_233368		SeqNo: 2827323		PrepDate:		DF: 100		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	4718	500	5000	0	94.4	80 - 120	4697	0.448	20	
1,1,2,2-Tetrachloroethane	4675	500	5000	0	93.5	72 - 120	4700	0.536	20	
1,1,2-Trichloroethane	4703	500	5000	0	94.1	80 - 120	4711	0.152	20	
1,1-Dichloroethane	4548	500	5000	0	91.0	76 - 120	4361	4.2	20	
1,1-Dichloroethene	4570	500	5000	0	91.4	73 - 124	4430	3.11	20	
1,2,4-Trimethylbenzene	4578	500	5000	35.87	90.8	68 - 123	4731	3.28	20	
1,2-Dibromoethane	4558	500	5000	0	91.2	80 - 120	4752	4.15	20	
1,2-Dichloroethane	4530	500	5000	0	90.6	78 - 120	4547	0.369	20	
1,2-Dichloropropane	4942	500	5000	0	98.8	80 - 120	4929	0.257	20	
1,3,5-Trimethylbenzene	4674	500	5000	36.32	92.8	80 - 120	4669	0.118	20	
2-Butanone	10200	1000	10000	0	102	58 - 132	10610	3.88	20	
2-Hexanone	10200	1000	10000	0	102	61 - 130	10740	5.22	20	
4-Isopropyltoluene	4462	500	5000	0	89.2	79 - 120	4384	1.77	20	
4-Methyl-2-pentanone	10250	1000	10000	0	103	65 - 127	10910	6.18	20	
Acetone	9834	1000	10000	0	98.3	59 - 137	10350	5.13	20	
Benzene	10780	500	5000	6964	76.4	73 - 121	10840	0.496	20	
Bromodichloromethane	4826	500	5000	0	96.5	75 - 125	4766	1.25	20	
Bromoform	4582	500	5000	0	91.6	70 - 130	4736	3.31	20	
Bromomethane	2844	500	5000	0	56.9	60 - 145	2542	11.2	20	S
Carbon disulfide	9276	1000	10000	0	92.8	68 - 141	8990	3.13	20	
Carbon tetrachloride	4512	500	5000	0	90.2	75 - 125	4368	3.25	20	
Chlorobenzene	4472	500	5000	0	89.4	80 - 120	4519	1.06	20	
Chloroethane	5304	500	5000	0	106	76 - 121	6031	12.8	20	
Chloroform	4751	500	5000	0	95.0	70 - 130	4762	0.218	20	
Chloromethane	3951	500	5000	0	79.0	67 - 123	3777	4.49	20	
cis-1,2-Dichloroethene	4680	500	5000	0	93.6	78 - 120	5054	7.69	20	
cis-1,3-Dichloropropene	5442	500	5000	0	109	80 - 120	5374	1.26	20	
Dibromochloromethane	4571	500	5000	0	91.4	80 - 120	4797	4.84	20	
Ethylbenzene	4793	500	5000	68.58	94.5	80 - 120	5017	4.58	20	
Isopropylbenzene	4763	500	5000	0	95.3	75 - 130	4785	0.449	20	
m,p-Xylene	9588	1000	10000	184.7	94.0	78 - 121	9891	3.11	20	
Methyl tert-butyl ether	5428	500	5000	1603	76.5	70 - 125	5043	7.35	20	
Methylene chloride	5214	1000	5000	0	104	65 - 133	5020	3.79	20	
Naphthalene	4738	500	5000	197.5	90.8	65 - 135	4833	1.98	20	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233368		Instrument: VOA1		Method: SW8260					
MSD		Sample ID: HS14050073-15MSD		Units: ug/L		Analysis Date: 08-May-2014 22:03			
Client ID: MW-107-0414		Run ID: VOA1_233368		SeqNo: 2827323		PrepDate:		DF: 100	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
n-Butylbenzene	4452	500	5000	103.6	87.0	77 - 120	4433	0.423	20
n-Propylbenzene	4748	500	5000	0	95.0	78 - 120	4859	2.31	20
o-Xylene	4914	500	5000	0	98.3	80 - 120	4865	1.01	20
sec-Butylbenzene	4797	500	5000	0	95.9	78 - 120	4832	0.718	20
Styrene	4980	500	5000	0	99.6	80 - 120	4983	0.0516	20
Tetrachloroethene	4175	500	5000	0	83.5	79 - 120	4160	0.378	20
Toluene	4639	500	5000	30.09	92.2	80 - 120	4906	5.61	20
trans-1,2-Dichloroethene	4627	500	5000	0	92.5	78 - 120	4530	2.12	20
trans-1,3-Dichloropropene	5502	500	5000	0	110	80 - 120	5395	1.96	20
Trichloroethene	4868	500	5000	0	97.4	80 - 120	4791	1.6	20
Vinyl chloride	4601	200	5000	0	92.0	70 - 127	4360	5.38	20
Xylenes, Total	14500	1500	15000	184.7	95.4	78 - 121	14760	1.73	20
Surr: 1,2-Dichloroethane-d4	4727	500	5000	0	94.5	70 - 125	4564	3.49	20
Surr: 4-Bromofluorobenzene	4959	500	5000	0	99.2	72 - 125	5158	3.93	20
Surr: Dibromofluoromethane	5167	500	5000	0	103	71 - 125	5022	2.85	20
Surr: Toluene-d8	4631	500	5000	0	92.6	75 - 125	4951	6.68	20
The following samples were analyzed in this batch:									
HS14050073-15			HS14050073-19						

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233228		Instrument: Balance1		Method: M2540C	
MBLK	Sample ID: WBLK-050514	Units: mg/L		Analysis Date: 05-May-2014 16:40	
Client ID:	Run ID: Balance1_233228	SeqNo: 2823844		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)					
		U	10.0		
LCS	Sample ID: WLCS-050514	Units: mg/L		Analysis Date: 05-May-2014 16:40	
Client ID:	Run ID: Balance1_233228	SeqNo: 2823845		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)					
		1034	10.0	1000	0 103 85 - 115
DUP	Sample ID: HS14050073-17DUP	Units: mg/L		Analysis Date: 05-May-2014 16:40	
Client ID: EB-17-0414	Run ID: Balance1_233228	SeqNo: 2823843		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)					
		U	10.0		
					4 0 10
DUP	Sample ID: HS14041239-01DUP	Units: mg/L		Analysis Date: 05-May-2014 16:40	
Client ID:	Run ID: Balance1_233228	SeqNo: 2823829		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)					
		1580	10.0		
				1600	1.26 10
The following samples were analyzed in this batch:					
		HS14050073-01	HS14050073-03	HS14050073-05	HS14050073-07
		HS14050073-09	HS14050073-11	HS14050073-13	HS14050073-15
		HS14050073-17			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233285		Instrument: Balance1		Method: M2540C					
MBLK	Sample ID: WBLK-050614	Units: mg/L		Analysis Date: 06-May-2014 16:40					
Client ID:	Run ID: Balance1_233285	SeqNo: 2825282		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit Qual	
Total Dissolved Solids (Residue, Filterable)		U	10.0						
LCS	Sample ID: WLCS-050614	Units: mg/L		Analysis Date: 06-May-2014 16:40					
Client ID:	Run ID: Balance1_233285	SeqNo: 2825283		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit Qual	
Total Dissolved Solids (Residue, Filterable)		986	10.0	1000	0 98.6	85 - 115			
DUP	Sample ID: HS14050028-06DUP	Units: mg/L		Analysis Date: 06-May-2014 16:40					
Client ID:	Run ID: Balance1_233285	SeqNo: 2825268		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit Qual	
Total Dissolved Solids (Residue, Filterable)		62560	10.0			61680	1.42	10	
DUP	Sample ID: HS14050014-01DUP	Units: mg/L		Analysis Date: 06-May-2014 16:40					
Client ID:	Run ID: Balance1_233285	SeqNo: 2825262		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit Qual	
Total Dissolved Solids (Residue, Filterable)		5900	10.0			5580	5.57	10	
The following samples were analyzed in this batch:		HS14050073-19	HS14050073-21	HS14050073-23	HS14050073-25				
		HS14050073-27	HS14050073-29	HS14050073-31	HS14050073-33				
		HS14050073-35	HS14050073-37	HS14050073-39	HS14050073-41				
		HS14050073-43							

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233298		Instrument: UV-2450		Method: SW9012	
MBLK	Sample ID: MBLK-233298	Units: mg/L		Analysis Date: 06-May-2014 18:08	
Client ID:	Run ID: UV-2450_233298	SeqNo: 2825580		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	U	0.0200			

LCS	Sample ID: LCS-233298	Units: mg/L		Analysis Date: 06-May-2014 18:08	
Client ID:	Run ID: UV-2450_233298	SeqNo: 2825581		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	0.172	0.0200	0.2	0 86.0	80 - 120

MS	Sample ID: HS14041068-37MS	Units: mg/L		Analysis Date: 06-May-2014 18:08	
Client ID:	Run ID: UV-2450_233298	SeqNo: 2825582		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	0.032	0.0200	0.2	0.14 -54.0	80 - 120 S

MSD	Sample ID: HS14041068-37MSD	Units: mg/L		Analysis Date: 06-May-2014 18:08	
Client ID:	Run ID: UV-2450_233298	SeqNo: 2825583		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Cyanide	0.034	0.0200	0.2	0.14 -53.0	80 - 120 0.032 6.06 25 S

The following samples were analyzed in this batch:					
HS14050073-11		HS14050073-13		HS14050073-17	
HS14050073-43		HS14050073-55			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233358		Instrument: Balance1		Method: M2540C	
MBLK	Sample ID: WBLK-050714	Units: mg/L		Analysis Date: 07-May-2014 17:40	
Client ID:	Run ID: Balance1_233358	SeqNo: 2827127		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)					
		U	10.0		
LCS	Sample ID: WLCS-050714	Units: mg/L		Analysis Date: 07-May-2014 17:40	
Client ID:	Run ID: Balance1_233358	SeqNo: 2827128		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)					
		1090	10.0	1000	0 109 85 - 115
DUP	Sample ID: HS14050074-01DUP	Units: mg/L		Analysis Date: 07-May-2014 17:40	
Client ID:	Run ID: Balance1_233358	SeqNo: 2827120		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)					
		1890	10.0		1938 2.51 10
DUP	Sample ID: HS14050028-07DUP	Units: mg/L		Analysis Date: 07-May-2014 17:40	
Client ID:	Run ID: Balance1_233358	SeqNo: 2827110		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Total Dissolved Solids (Residue, Filterable)					
		24680	10.0		24180 2.05 10
The following samples were analyzed in this batch:					
		HS14050073-45	HS14050073-47	HS14050073-49	HS14050073-51
		HS14050073-53	HS14050073-55		

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233976		Instrument: ICS3000		Method: E300						
MBLK	Sample ID: WBLKW1	Units: mg/L			Analysis Date: 19-May-2014 18:10					
Client ID:		Run ID: ICS3000_233976	SeqNo: 2841845		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.351	0.500								J
Fluoride	U	0.100								
Sulfate	U	0.500								
LCS	Sample ID: WLCSW1	Units: mg/L			Analysis Date: 19-May-2014 18:34					
Client ID:		Run ID: ICS3000_233976	SeqNo: 2841846		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.62	0.500	20	0	103	90 - 110				
Fluoride	4.044	0.100	4	0	101	90 - 110				
Sulfate	19.77	0.500	20	0	98.9	90 - 110				
MS	Sample ID: HS14050073-55MS	Units: mg/L			Analysis Date: 20-May-2014 01:00					
Client ID: EB-19-0414		Run ID: ICS3000_233976	SeqNo: 2841862		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	13.37	0.500	10	0.0985	133	80 - 120				S
Fluoride	2.645	0.100	2	0.019	131	80 - 120				S
Sulfate	12.82	0.500	10	0.1261	127	80 - 120				S
MSD	Sample ID: HS14050073-55MSD	Units: mg/L			Analysis Date: 20-May-2014 01:24					
Client ID: EB-19-0414		Run ID: ICS3000_233976	SeqNo: 2841863		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	11.01	0.500	10	0.0985	109	80 - 120	13.37	19.4	20	
Fluoride	2.167	0.100	2	0.019	107	80 - 120	2.645	19.9	20	
Sulfate	10.33	0.500	10	0.1261	102	80 - 120	12.82	21.5	20	R
The following samples were analyzed in this batch:		HS14050073-31		HS14050073-33		HS14050073-35		HS14050073-37		
		HS14050073-39		HS14050073-41		HS14050073-43		HS14050073-45		
		HS14050073-47		HS14050073-49		HS14050073-51		HS14050073-53		
		HS14050073-55								

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233982		Instrument: ICS3000		Method: E300	
MBLK	Sample ID: WBLKW2	Units: mg/L		Analysis Date: 19-May-2014 22:15	
Client ID:	Run ID: ICS3000_233982	SeqNo: 2841985		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride U 0.500

Sulfate U 0.500

LCS	Sample ID: WLCSW2	Units: mg/L		Analysis Date: 19-May-2014 22:41	
Client ID:	Run ID: ICS3000_233982	SeqNo: 2841986		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride 21.15 0.500 20 0 106 90 - 110

Sulfate 21.43 0.500 20 0 107 90 - 110

MSD	Sample ID: HS14050073-29MSD	Units: mg/L		Analysis Date: 20-May-2014 06:51	
Client ID: Dup-14-0414	Run ID: ICS3000_233982	SeqNo: 2842005		PrepDate:	DF: 50
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride 676.5 25.0 500 224 90.5 80 - 120 0 0 20

Sulfate 1814 25.0 500 1370 88.8 80 - 120 0 0 20

MSD	Sample ID: HS14050073-29MS	Units: mg/L		Analysis Date: 20-May-2014 06:25	
Client ID: Dup-14-0414	Run ID: ICS3000_233982	SeqNo: 2842004		PrepDate:	DF: 50
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride 680 25.0 500 224 91.2 80 - 120 0 0 20

Sulfate 1817 25.0 500 1370 89.4 80 - 120 0 0 20

The following samples were analyzed in this batch:	HS14050073-01	HS14050073-03	HS14050073-05	HS14050073-07
	HS14050073-09	HS14050073-11	HS14050073-13	HS14050073-15
	HS14050073-17	HS14050073-19	HS14050073-21	HS14050073-23
	HS14050073-25	HS14050073-27	HS14050073-29	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R233989		Instrument: ICS3000		Method: E300	
MBLK	Sample ID: WBLKW2	Units: mg/L		Analysis Date: 20-May-2014 05:26	
Client ID:	Run ID: ICS3000_233989	SeqNo: 2842173		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	U	0.500			
Fluoride	U	0.100			
Sulfate	U	0.500			

LCS	Sample ID: WLCSW2	Units: mg/L		Analysis Date: 20-May-2014 05:50	
Client ID:	Run ID: ICS3000_233989	SeqNo: 2842174		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	20.61	0.500	20	0	103	90 - 110
Fluoride	4.044	0.100	4	0	101	90 - 110
Sulfate	19.82	0.500	20	0	99.1	90 - 110

MS	Sample ID: HS14050073-55MS	Units: mg/L		Analysis Date: 20-May-2014 10:15	
Client ID: EB-19-0414	Run ID: ICS3000_233989	SeqNo: 2842185		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	10.22	0.500	10	0.119	101	80 - 120
Fluoride	2.026	0.100	2	0.04	99.3	80 - 120
Sulfate	9.782	0.500	10	0.347	94.4	80 - 120

MSD	Sample ID: HS14050073-55MSD	Units: mg/L		Analysis Date: 20-May-2014 10:39	
Client ID: EB-19-0414	Run ID: ICS3000_233989	SeqNo: 2842186		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	10.39	0.500	10	0.119	103	80 - 120	10.22	1.56	20
Fluoride	2.055	0.100	2	0.04	101	80 - 120	2.026	1.42	20
Sulfate	9.871	0.500	10	0.347	95.2	80 - 120	9.782	0.906	20

The following samples were analyzed in this batch:

HS14050073-41	HS14050073-43	HS14050073-45	HS14050073-47
HS14050073-49	HS14050073-51	HS14050073-53	HS14050073-55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R234131		Instrument: ICS3000		Method: E300	
MBLK	Sample ID: WBLKW2	Units: mg/L		Analysis Date: 21-May-2014 05:10	
Client ID:	Run ID: ICS3000_234131	SeqNo: 2845081		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Chloride	U	0.500			
Fluoride	U	0.100			
Sulfate	U	0.500			

LCS	Sample ID: WLCSW2	Units: mg/L		Analysis Date: 21-May-2014 05:34	
Client ID:	Run ID: ICS3000_234131	SeqNo: 2845082		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Chloride	20.9	0.500	20	0 105	90 - 110
Fluoride	4.072	0.100	4	0 102	90 - 110
Sulfate	20.45	0.500	20	0 102	90 - 110

MS	Sample ID: HS14050073-29MS	Units: mg/L		Analysis Date: 21-May-2014 12:48	
Client ID: Dup-14-0414	Run ID: ICS3000_234131	SeqNo: 2845100		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Chloride	281.9	0.500	10	277.3 46.0	80 - 120 SEO
Fluoride	3.71	0.100	2	1.9 90.5	80 - 120

MSD	Sample ID: HS14050073-29MSD	Units: mg/L		Analysis Date: 21-May-2014 13:12	
Client ID: Dup-14-0414	Run ID: ICS3000_234131	SeqNo: 2845101		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Chloride	271.1	0.500	10	277.3 -62.6	80 - 120 281.9 3.93 20 SEO
Fluoride	3.977	0.100	2	1.9 104	80 - 120 3.71 6.95 20

The following samples were analyzed in this batch:					
HS14050073-01	HS14050073-03	HS14050073-05	HS14050073-07		
HS14050073-09	HS14050073-11	HS14050073-13	HS14050073-15		
HS14050073-17	HS14050073-19	HS14050073-21	HS14050073-23		
HS14050073-25	HS14050073-27	HS14050073-29			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R234223		Instrument: ICS2100		Method: E300	
MBLK	Sample ID: WBLK	Units: mg/L		Analysis Date: 22-May-2014 10:59	
Client ID:	Run ID: ICS2100_234223	SeqNo: 2847965		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	U	0.200			

LCS	Sample ID: WLCS	Units: mg/L		Analysis Date: 22-May-2014 11:14	
Client ID:	Run ID: ICS2100_234223	SeqNo: 2847966		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	8.266	0.200	8	0 103	90 - 110

MS	Sample ID: HS14050073-39MS	Units: mg/L		Analysis Date: 22-May-2014 00:23	
Client ID: MW-116-0414	Run ID: ICS2100_234223	SeqNo: 2847961		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	22.97	1.00	20	2.859 101	80 - 120

MSD	Sample ID: HS14050073-39MSD	Units: mg/L		Analysis Date: 22-May-2014 00:38	
Client ID: MW-116-0414	Run ID: ICS2100_234223	SeqNo: 2847962		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	21.12	1.00	20	2.859 91.3	80 - 120 22.97 8.38 20

The following samples were analyzed in this batch:					
HS14050073-01	HS14050073-03	HS14050073-05	HS14050073-07		
HS14050073-09	HS14050073-11	HS14050073-13	HS14050073-15		
HS14050073-17	HS14050073-19	HS14050073-21	HS14050073-23		
HS14050073-25	HS14050073-27	HS14050073-29	HS14050073-31		
HS14050073-33	HS14050073-35	HS14050073-37	HS14050073-39		

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
 WorkOrder: HS14050073
 Project: Artesia Refinery Semi-Annual

QC BATCH REPORT

Batch ID: R234293		Instrument: ICS3K2		Method: E300	
MBLK	Sample ID: WBLKW2	Units: mg/L		Analysis Date: 22-May-2014 06:08	
Client ID:	Run ID: ICS3K2_234293	SeqNo: 2848916		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	U	0.200			
LCS	Sample ID: WLCW2	Units: mg/L		Analysis Date: 22-May-2014 06:32	
Client ID:	Run ID: ICS3K2_234293	SeqNo: 2848917		PrepDate:	DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	7.374	0.200	8	0 92.2	90 - 110
MS	Sample ID: HS14050073-55MS	Units: mg/L		Analysis Date: 22-May-2014 10:57	
Client ID: EB-19-0414	Run ID: ICS3K2_234293	SeqNo: 2848928		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	15.17	1.00	20	0 75.8	80 - 120 S
MSD	Sample ID: HS14050073-55MSD	Units: mg/L		Analysis Date: 22-May-2014 11:22	
Client ID: EB-19-0414	Run ID: ICS3K2_234293	SeqNo: 2848929		PrepDate:	DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value %REC	Control Limit RPD Ref Value %RPD RPD Limit Qual
Nitrate/Nitrite (as N)	15.7	1.00	20	0 78.5	80 - 120 15.17 3.47 20 S
The following samples were analyzed in this batch:					
HS14050073-41		HS14050073-43		HS14050073-45	
HS14050073-49		HS14050073-51		HS14050073-53	
				HS14050073-47	
				HS14050073-55	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
WorkOrder: HS14050073

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	AR - 2014	27-Mar-2015
California	2919	31-Jul-2015
Dept of Defense	L2231 Rev 3-20-2014	22-Dec-2015
Illinois	003403	09-May-2015
Kansas	E-10352 8/15/2013-2014	01-Oct-2014
Kentucky	KY 2014-2015	30-Apr-2015
Louisiana	03087 2014/2015	30-Jun-2015
North Carolina	624 - 2014	31-Dec-2014
North Dakota	R-193 2025	30-Apr-2015
Oklahoma	2014-128	31-Aug-2015
Texas	TX104704231-14-13	30-Apr-2015

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Work Order: HS14050073

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS14050073-01	MW-104-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-01	MW-104-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-01	MW-104-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-01	MW-104-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-01	MW-104-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-01	MW-104-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-02	MW-104-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-03	Dup-13-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-03	Dup-13-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-03	Dup-13-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-03	Dup-13-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-03	Dup-13-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-03	Dup-13-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-04	Dup-13-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-05	MW-103-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-05	MW-103-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-05	MW-103-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-05	MW-103-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-05	MW-103-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-05	MW-103-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-06	MW-103-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-07	MW-101-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-07	MW-101-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-07	MW-101-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-07	MW-101-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-07	MW-101-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-07	MW-101-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-08	MW-101-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-09	MW-29-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-09	MW-29-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-09	MW-29-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-09	MW-29-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-09	MW-29-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-09	MW-29-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-10	MW-29-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-11	MW-66-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-11	MW-66-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-11	MW-66-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-11	MW-66-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-11	MW-66-0414	Login	02-May-14 11:52	DRC	VW-3

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Work Order: HS14050073

SAMPLE TRACKING

HS14050073-11	MW-66-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-11	MW-66-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-12	MW-66-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-13	MW-28-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-13	MW-28-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-13	MW-28-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-13	MW-28-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-13	MW-28-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-13	MW-28-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-13	MW-28-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-14	MW-28-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-15	MW-107-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-15	MW-107-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-15	MW-107-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-15	MW-107-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-15	MW-107-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-15	MW-107-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-16	MW-107-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-17	EB-17-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-17	EB-17-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-17	EB-17-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-17	EB-17-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-17	EB-17-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-17	EB-17-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-17	EB-17-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-18	EB-17-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-19	MW-61-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-19	MW-61-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-19	MW-61-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-19	MW-61-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-19	MW-61-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-19	MW-61-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-20	MW-61-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-21	MW-128-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-21	MW-128-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-21	MW-128-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-21	MW-128-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-21	MW-128-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-21	MW-128-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-22	MW-128-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-23	TEL-4-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-23	TEL-4-0414	Login	02-May-14 11:52	DRC	21D

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Work Order: HS14050073

SAMPLE TRACKING

HS14050073-23	TEL-4-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-23	TEL-4-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-23	TEL-4-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-23	TEL-4-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-24	TEL-4-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-25	MW-49-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-25	MW-49-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-25	MW-49-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-25	MW-49-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-25	MW-49-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-25	MW-49-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-25	MW-49-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-26	MW-49-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-27	TEL-1-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-27	TEL-1-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-27	TEL-1-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-27	TEL-1-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-27	TEL-1-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-27	TEL-1-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-28	TEL-1-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-29	Dup-14-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-29	Dup-14-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-29	Dup-14-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-29	Dup-14-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-29	Dup-14-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-29	Dup-14-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-30	Dup-14-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-31	TEL-2-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-31	TEL-2-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-31	TEL-2-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-31	TEL-2-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-31	TEL-2-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-31	TEL-2-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-32	TEL-2-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-33	TEL-3-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-33	TEL-3-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-33	TEL-3-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-33	TEL-3-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-33	TEL-3-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-33	TEL-3-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-34	TEL-3-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-35	MW-114-0414	Login	02-May-14 11:52	DRC	21D

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Work Order: HS14050073

SAMPLE TRACKING

HS14050073-35	MW-114-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-35	MW-114-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-35	MW-114-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-35	MW-114-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-35	MW-114-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-36	MW-114-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-37	MW-115-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-37	MW-115-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-37	MW-115-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-37	MW-115-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-37	MW-115-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-37	MW-115-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-38	MW-115-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-39	MW-116-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-39	MW-116-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-39	MW-116-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-39	MW-116-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-39	MW-116-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-39	MW-116-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-40	MW-116-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-41	MW-125-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-41	MW-125-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-41	MW-125-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-41	MW-125-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-41	MW-125-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-41	MW-125-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-42	MW-125-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-43	EB-18-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-43	EB-18-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-43	EB-18-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-43	EB-18-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-43	EB-18-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-43	EB-18-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-43	EB-18-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-44	EB-18-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-45	MW-117-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-45	MW-117-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-45	MW-117-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-45	MW-117-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-45	MW-117-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-45	MW-117-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-46	MW-117-0414-D	Login	02-May-14 11:52	DRC	21D

Client: Navajo Refining Company
Project: Artesia Refinery Semi-Annual
Work Order: HS14050073

SAMPLE TRACKING

HS14050073-47	MW-118-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-47	MW-118-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-47	MW-118-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-47	MW-118-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-47	MW-118-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-47	MW-118-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-48	MW-118-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-49	MW-119-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-49	MW-119-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-49	MW-119-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-49	MW-119-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-49	MW-119-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-49	MW-119-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-50	MW-119-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-51	DUP-15-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-51	DUP-15-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-51	DUP-15-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-51	DUP-15-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-51	DUP-15-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-51	DUP-15-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-52	DUP-15-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-53	MW-46R-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-53	MW-46R-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-53	MW-46R-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-53	MW-46R-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-53	MW-46R-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-54	MW-46R-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-55	EB-19-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-55	EB-19-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-55	EB-19-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-55	EB-19-0414	Login	02-May-14 11:52	DRC	21D
HS14050073-55	EB-19-0414	Login	02-May-14 11:52	DRC	VW-3
HS14050073-55	EB-19-0414	Login	02-May-14 11:52	DRC	BTEX A1
HS14050073-55	EB-19-0414	Login	02-May-14 11:52	DRC	TPH C2
HS14050073-56	EB-19-0414-D	Login	02-May-14 11:52	DRC	21D
HS14050073-57	TB-032514-92	Login	02-May-14 11:52	DRC	VW-3

Sample Receipt Checklist

Client Name: Navajo Refining
Work Order: HS14050073

Date/Time Received: **01-May-2014 09:30**
Received by: **JDE**

Checklist completed by: Dana.Capps 2-May-2014
eSignature Date

Reviewed by: Sonia West 7-May-2014
eSignature Date

Matrices: **Water**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	

Temperature(s)/Thermometer(s): 0.3/0.3 2.8/2.8 2.1/2.1 0.5/0.5 2.1/2.1 1.6/1.6 0.4/0.4 R1
1.5/1.5 C/U

Cooler(s)/Kit(s): 5563 6109 5928 5927 6034 3063 6033 6112

Date/Time sample(s) sent to storage: 05/02/2014

Water - VOA vials have zero headspace? Yes ☒ No ☐ No VOA vials submitted ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ N/A ☐

pH adjusted? Yes ☐ No ☐ N/A ☒

pH adjusted by:

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: 0 Regarding:

Comments:

Corrective Action:



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COC ID: 97158

HS14050073

Navajo Refining Company
Artesia Refinery Semi-Annual



ALS Project Manager:

Customer Information				Project Information				ALS Project Manager:											
Purchase Order	138604	Project Name	SA- Artesia Refinery-Sitewide GW	A	VOC (8200) 0.0001														
Work Order		Project Number		B	GRO (8015M)														
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	DRO (8015M)														
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se														
Address	PO Box 159	Address	PO Box 159	E	Total Metals (6020/7470) Hg, Ni, V														
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	F	Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS														
Phone	(575) 748-6733	Phone	(575) 748-6733	G	Cyanide (9014)														
Fax	(575) 748-5421	Fax	(575) 748-5421	H	Nitrate/Nitrite as N (preserved)														
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se														
				J	Dis. Metals (6020/7470) Hg, Ni, V														

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	mw-104-0414	04/28/14	1100	ltw	2.3.8	6			X	X		X		X			
2	mw-104-0414-D	04/28/14	1100	ltw	2.8	1									X		
3	Dup-13-0414	04/28/14		ltw	2.3.8	6			X	X		X		X			
4	Dup-13-0414-D	04/28/14		ltw	2.8	1									X		
5	mw-103-0414	04/28/14	1210	ltw	2.3.8	6			X	X		X		X			
6	mw-103-0414-D	04/28/14	1210	ltw	2.8	1									X		
7	mw-101-0414	04/28/14	1235	ltw	2.3.8	6			X	X		X		X			
8	mw-101-0414	04/28/14	1235	ltw	2.8	1									X		
9																	
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Jose Jerry Sonfurny		700X		☒ Std 10 WK days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour			
Relinquished by:	Date:	Time:	Received by:	Notes:			
Sonfurny	04/30/14	1500		10 Work Days TAT - CC Pam Krueger/Arcadis			
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)	
	5.1.14	9.30	Justine			☒ Level 2 Std QC ☐ Level 3 Std QC/Row da ☐ Level 4 SW846/CLP ☐ Other/EDD	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	☐ TRRP ChkList ☐ TRRP Level 4			
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O8 6-NaHSO4 7-Other 8-4°C 9-5035							

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+1 801 266 7700

South Charleston, WV
+1 304 356 3168

York, PA
+1 717 505 5280

Customer Information		Project Information		ALS Project Manager:		ALS Work Order #:	
Purchase Order	138604	Project Name	SA- Artesia Refinery-Sitewide GW	Parameter/Method Request for Analysis			
Work Order		Project Number		A	VOC (8260) Select		
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	B	GRO (8015M)		
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	C	DRO (8015M)		
Address	PO Box 159	Address	PO Box 159	D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se		
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	E	Total Metals (6020/7470) Hg, Ni, V		
Phone	(575) 748-8733	Phone	(575) 748-8733	F	Anions (300) Cl, F, SO ₄ , Cations (Ca, Mg, K, Na) TDS		
Fax	(575) 748-5421	Fax	(575) 748-5421	G	Cyanide (9014)		
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	H	Nitrate/Nitrite as N (preserved)		
				I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se		
				J	Dis. Metals (6020/7470) Hg, Ni, V		

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	mw-29-0414	04/28/14	1310	H ₂ O	2.3.8	6			X	X		X		X			
2	mw-29-0414-D	04/28/14	1310	H ₂ O	2.8	1									X		
3	mw-66-0414	04/28/14	1345	H ₂ O	2.3.4.8	7			X	X	X	X	X	X			
4	mw-66-0414-D	04/28/14	1345	H ₂ O	2.8	1									X	X	
5	mw-28-0414	04/28/14	1420	H ₂ O	2.3.4.8	7			X	X	X	X	X	X			
6	mw-28-0414-D	04/28/14	1420	H ₂ O	2.8	1									X	X	
7	mw-107-0414	04/28/14	1500	H ₂ O	2.3.8	6			X	X		X		X			
8	mw-107-0414	04/28/14	1500	H ₂ O	2.8	1									X		
9	EB-17-0414	04/28/14	1600	H ₂ O	2.3.4.8	7			X	X	X	X	X	X			
10	EB-17-0414-D	04/28/14	1600	H ₂ O	2.8	1									X	X	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Sosa, Jerry Sosa, Jerry		Fed X		☒ Std 10 Wk days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour			
Relinquished by:	Date:	Time:	Received by:	Notes:			
Sosa, Jerry	04/30/14	1500		10 Work Days TAT, CC Perm Krueger/Aracis			
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)	
Sosa, Jerry	5.1.14	9:30				☒ Level 2 Std QC ☐ Level 3 Std QC/Row da ☐ Level 4 SW846/CLP ☐ Other/EDD	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	☐ TRRP ChkList ☐ TRRP Level 4			
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035							

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South Charleston, WV
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York, PA
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Customer Information		Project Information		Parameter/Method Request for Analysis													
Purchase Order	175059 138604	Project Name	SA- Artesia Refinery-TMS-GW	A	VOC (8260) Select												
Work Order		Project Number	50760	B	GRO (8015M)												
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	DRO (8015M)												
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se												
Address	PO Box 159	Address	PO Box 159	E	Total Metals (6020/7470) Hg, Ni, V												
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	F	Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS												
Phone	(575) 748-6733	Phone	(575) 748-6733	G	Cyanide (9014)												
Fax	(575) 748-5421	Fax	(575) 748-5421	H	Nitrate/Nitrite as N (preserved)												
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se												
				J	Dis. Metals (6020/7470) Hg, Ni, V												
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	mw-61-0414	04/29/14	0815	ltw	2.3.8	6			X	X		X		X			
2	mw-61-0414-D	04/29/14	0815	ltw	2.8	1									X		
3	mw-128-0414	04/29/14	1140	ltw	2.3.8	6			X	X		X		X			
4	mw-128-0414-D	04/29/14	1140	ltw	2.8	1									X		
5																	
6																	
7																	
8																	
9																	
10																	
Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:									
Sosa Jerry Sosa Jerry		FEDEX		☒ Std 10 Wk Days ☐ 5 Wk Days ☐ Other ☐ 2 Wk Days ☐ 24 Hour													
Relinquished by		Date	Time	Received by:		Notes: 10 Work Days TAT. CC Pam Krueger/Arcadis											
Sosa Jerry		04/30/14	1500	Kustan E													
Relinquished by		Date	Time	Received by (Laboratory):		QC Package: (Check One Box Below)											
		5.1.14	9530			☒ Level II Std QC ☐ TRRP CheckList											
Logged by (Laboratory):		Date	Time	Checked by (Laboratory):		☐ Level III Std QC/Raw Data ☐ TRRP Level IV											
						☐ Level IV SW846/CLP											
Preservative Key:		☐ Other / EDD															
1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035																	

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Customer Information			Project Information			Parameter/Method Request for Analysis													
Purchase Order	173652	Project Name	SA- Artesia Refinery-TMD SACW TEL			A	VOC (8260) Select												
Work Order		Project Number				B	GRO (8015M)												
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company			C	DRO (8015M)												
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez			D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se												
Address	PO Box 159	Address	PO Box 159			E	Total Metals (6020/7470) Hg, Ni, V												
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211			F	Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS												
Phone	(575) 748-6733	Phone	(575) 748-6733			G	Cyanide (8014)												
Fax	(575) 746-5421	Fax	(575) 746-5421			H	Nitrate/Nitrite as N (preserved)												
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com			I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se												
						J	Dis. Metals (6020/7470) Hg, Ni, V												

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	TEL-4-0414	04/29/14	1030	HW	2.3.8	6			X	X		X		X			
2	TEL-4-0414-D	04/29/14	1030	HW	2.8	1									X		
3	MW-49-0414	04/29/14	1105	HW	2.3.4.8	7			X	X	X	X	X	X			
4	MW-49-0414-D	04/29/14	1105	HW	2.8	1									X	X	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:	
Suzanne Sany Sany		TEL		☒ Std 10 WK Days ☐ 5 WK Days ☐ Other _____ ☐ 2 WK Days ☐ 24 Hour					
Relinquished by:		Date:		Time:		Received by:		Notes:	
Sany		04/30/14		1500		Lustre		10 Work Days TAT. CC Pam Krueger/Arcadis	
Relinquished by:		Date:		Time:		Received by (Laboratory):		Cooler ID	
Sany		5-1-14		9:30				Cooler Temp.	
Logged by (Laboratory):		Date:		Time:		Checked by (Laboratory):		QC Package: (Check One Box Below)	
								☒ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SW845/CLP ☐ Other / EDD	
Preservative Key:		1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035							

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York, PA
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Customer Information		Project Information		ALS Project Manager:		ALS Work Order #:	
Purchase Order	12884 173652	Project Name	SA- Artesia Refinery-Stewards TEL			Parameter/Method Request for Analysis	
Work Order		Project Number				A VOC (8260) Select	
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company			B GRO (8015M)	
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez			C DRO (8015M)	
Address	PO Box 159	Address	PO Box 159			D Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se	
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211			E Total Metals (6020/7470) Hg, Ni, V	
Phone	(575) 748-6733	Phone	(575) 748-6733			F Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS	
Fax	(575) 746-5421	Fax	(575) 746-5421			G Cyanide (9014)	
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com			H Nitrate/Nitrite as N (preserved)	
						I Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se	
						J Dis. Metals (6020/7470) Hg, Ni, V	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	TEL-1-0414	04/29/14	0900	H2O	2.3.8	6			X	X		X		X			
2	TEL-1-0414-D	04/29/14	0900	H2O	2.8	1									X		
3	Dup-14-0414	04/29/14		H2O	2.3.8	6			X	X		X		X			
4	Dup-14-0414-D	04/29/14		H2O	2.8	1									X		
5	TEL-2-0414	04/29/14	0930	H2O	2.3.8	6			X	X		X		X			
6	TEL-2-0414-D	04/29/14	0930	H2O	2.8	1									X		
7	TEL-3-0414	04/29/14	1005	H2O	2.3.8	6			X	X		X		X			
8	TEL-3-0414-D	04/29/14	1005	H2O	2.8	1									X		
9																	
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Sosa Jerry Sosa Jerry		Fed X		☒ Std 10 WK days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour			
Relinquished by:	Date:	Time:	Received by:	Notes:			
Sosa Jerry	04/30/14	1500		10 Work Days TAT CC Pam Krueger/Arcadis			
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID			
Sosa Jerry	5.1.14	9:30		Cooler Temp.			
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	QC Package: (Check One Box Below)			
				☒ Level 2 Std QC ☐ Level 3 Std QC/Row ds ☐ Level 4 SW846/CLP ☐ Other EDD			
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035				☐ TRRP ChkList ☐ TRRP Level 4			

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South Charleston, WV
+1 304 356 3168
York, PA
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Customer Information		Project Information		ALS Project Manager:		ALS Work Order #:	
Purchase Order		Project Name		Parameter/Method Request for Analysis			
138604	SA- Artesia Refinery-Sitewide GW	A	VOC (8260) Select				
Work Order	Project Number	B	GRO (8015M)				
Company Name	Bill To Company	C	DRO (8015M)				
Send Report To	Invoice Attn	D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se				
Address	Address	E	Total Metals (6020/7470) Hg, Ni, V				
City/State/Zip	City/State/Zip	F	Anions (300) Cl, F, SO ₄ , Cations (Ca, Mg, K, Na) TDS				
Phone	Phone	G	Cyanide (9014)				
Fax	Fax	H	Nitrate/Nitrite as N (preserved)				
e-Mail Address	e-Mail Address	I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se				
		J	Dis. Metals (6020/7470) Hg, Ni, V				

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	mw-114-0414	04/29/14	1235	H ₂ O	2.3.8	6			X	X		X		X			
2	mw-114-0414-D	04/29/14	1235	H ₂ O	2.8	1									X		
3	mw-115-0414	04/29/14	1320	H ₂ O	2.3.8	6			X	X		X		X			
4	mw-115-0414-D	04/29/14	1320	H ₂ O	2.8	1									X		
5	mw-116-0414	04/29/14	1400	H ₂ O	2.3.8	6			X	X		X		X			
6	mw-116-0414-D	04/29/14	1400	H ₂ O	2.8	1									X		
7	mw-125-0414	04/29/14	1435	H ₂ O	2.3.8	6			X	X		X		X			
8	mw-125-0414-D	04/29/14	1435	H ₂ O	2.8	1									X		
9	EB-18-0414	04/29/14	1520	H ₂ O	2.3.4.8	7			X	X	X	X	X	X			
10	EB-18-0414-D	04/29/14	1520	H ₂ O	2.8	1									X	X	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Sosa, Jerry Sosa		7COX		☒ Std 10 WK days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour			
Relinquished by:		Date:	Time:	Received by:		Notes:	
Sosa, Jerry		04/30/14	1500	Gustafson		10 Work Days TAT, CC Pam Krueger/Arcadis	
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID	
Sosa, Jerry		5.1.14	9:30	Gustafson		Cooler Temp.	
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		QC Package: (Check One Box Below)	
						☒ Level 2 Std QC ☐ TRRP ChkList	
						☐ Level 3 Std QC/Row da ☐ TRRP Level 4	
						☐ Level 4 SW846/CLP	
						☐ Other/EDO	
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035							

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South Charleston, WV
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York, PA
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Customer Information		Project Information		ALS Project Manager: ALS Work Order #:															
Purchase Order		Project Name		Parameter/Method Request for Analysis															
173652-138604	SA- Artesia Refinery-TMD-CW	A VOC (8260) Select																	
Work Order	Project Number	B GRO (8015M)																	
Company Name	Bill To Company	C DRO (8015M)																	
Send Report To	Invoice Attn	D Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se																	
Address	Address	E Total Metals (6020/7470) Hg, Ni, V																	
City/State/Zip	City/State/Zip	F Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS																	
Phone	Phone	G Cyanide (9014)																	
Fax	Fax	H Nitrate/Nitrite as N (preserved)																	
e-Mail Address	e-Mail Address	I Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se																	
		J Dis. Metals (6020/7470) Hg, Ni, V																	
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	mw-117-0414	04/30/14	0920	HW	23.8	6			X	X		X		X					
2	mw-117-0414-B	04/30/14	0920	HW	2.8	1			X	X		X		X					
3	mw-118-0414	04/30/14	1000	HW	23.8	6			X	X		X		X					
4	mw-118-0414-B	04/30/14	1000	HW	2.8	1			X	X		X		X					
5	mw-119-0414	04/30/14	1040	HW	23.8	6			X	X		X		X					
6	mw-119-0414-B	04/30/14	1040	HW	2.8	1			X	X		X		X					
7	Dup-15-0414	04/30/14		HW	23.8	6			X	X		X		X					
8	Dup-15-0414-B	04/30/14		HW	2.8	1			X	X		X		X					
9																			
10																			
Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:											
Sosa Jerry Sosa Jerry		Fed X		☒ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour															
Relinquished by:		Date:		Time:		Received by:		Notes:											
Sosa Jerry		04/30/14		1500		Lusner		10 Work Days TAT. CC Pam Krueger/Arcadis											
Relinquished by:		Date:		Time:		Received by (Laboratory):		Cooler ID		Cooler Temp.		QC Package: (Check One Box Below)							
Sosa Jerry		5-1-14		9:30								☒ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SW846/CLP ☐ Other / EDD							
Logged by (Laboratory):		Date:		Time:		Checked by (Laboratory):													
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035																			

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+1 801 266 7700

South Charleston, WV
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York, PA
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Customer Information		Project Information		ALS Project Manager: ALS Work Order #:															
Parameter/Method Request for Analysis																			
Purchase Order	173654	Project Name	SA- Artesia Refinery-Sewer TMD																
Work Order		Project Number																	
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company																
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez																
Address	PO Box 159	Address	PO Box 159																
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211																
Phone	(575) 748-6733	Phone	(575) 748-6733																
Fax	(575) 748-5421	Fax	(575) 748-5421																
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com																
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	MW-462-0414	04/30/14	0845	HW	2,3,8	6			X	X		X			X				
2	MW-462-0414	04/30/14	0845	HW	2,8	1										X			
3	EB-19-0414	04/30/14	1200	HW	2,3,4,8	7			X	X	X	X	X	X					
4	EB-19-0414-D	04/30/14	1200	HW	2,8	1										X	X		
5																			
6																			
7																			
8																			
9																			
10																			
Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Other:		Results Due Date:											
Sosa Jany Sosa Jany		Fed X		Std 10 Wk days		5 Wk Days		2 Wk Days		24 Hour									
Relinquished by:		Date:		Time:		Received by:		Notes:											
Sosa Jany		04/30/14		1500		Kusan E.		10 Work Days TAT CC Perm Krueger/Arcadis											
Relinquished by:		Date:		Time:		Received by (Laboratory):		Cooler ID											
Sosa Jany		5-1-14		9/30		Kusan E.		Cooler Temp.											
Logged by (Laboratory):		Date:		Time:		Checked by (Laboratory):		QC Package: (Check One Box Below)											
								☒ Level 2 Std QC ☐ Level 3 Std QC/Row de ☐ Level 4 SW246/CLP ☐ Other/EDO											
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035																			

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Customer Information		Project Information		Parameter/Method Request for Analysis																
Purchase Order	138604	Project Name	SA- Artesia Refinery-Sitewide GW	A	VOC (8260) Select															
Work Order		Project Number		B	GRO (8015M)															
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	DRO (8015M)															
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se															
Address	PO Box 159	Address	PO Box 159	E	Total Metals (6020/7470) Hg, Ni, V															
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	F	Anions (300) Cl, F, SO ₄ , Cations (Ca, Mg, K, Na) TDS															
Phone	(575) 748-6733	Phone	(575) 748-6733	G	Cyanide (9014)															
Fax	(575) 746-5421	Fax	(575) 746-5421	H	Nitrate/Nitrite as N (preserved)															
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se															
				J	Dis. Metals (6020/7470) Hg, Ni, V															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold			
1	mw-104-0414	04/28/14	1100	HW	1.8	6	X	X												
2	Dup-13-0414	04/28/14		HW	1.8	6	X	X												
3	mw-103-0414	04/28/14	1210	HW	1.8	6	X	X												
4	mw-101-0414	04/28/14	1235	HW	1.8	6	X	X												
5	mw-29-0414	04/28/14	1310	HW	1.8	6	X	X												
6	mw-66-0414	04/28/14	1345	HW	1.8	6	X	X												
7	mw-28-0414	04/28/14	1420	HW	1.8	6	X	X												
8	mw-107-0414	04/28/14	1500	HW	1.8	6	X	X												
9	EB-17-0414	04/28/14	1600	HW	1.8	6	X	X												
10	mw-61-0414	04/29/14	0815	HW	1.8	6	X	X												
Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)				Other				Results Due Date:								
Sosa Jerry Sosa Jerry		Fed X		☒ Std 10 WK days				☐ 5 WK Days				☐ 2 WK Days								
Relinquished by:		Date:		Time:		Received by:		Notes:		10 Work Days TAT, CC Pam Krueger/Aracelis										
Sosa Jerry		04/30/14		1500		Received by (Laboratory):				Cooler ID		Cooler Temp.								
Relinquished by:		Date:		Time:		Received by (Laboratory):				QC Package: (Check One Box Below)										
Sosa Jerry		5.1.14		9:30		Checked by (Laboratory):				☒ Level 2 Std QC		☐ TRRP ChkList								
Logged by (Laboratory):		Date:		Time:		Checked by (Laboratory):				☐ Level 3 Std QC/Row da		☐ TRRP Level 4								
										☐ Level 4 SW846/CLP										
										☐ Other/EOD										
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035																				

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South Charleston, WV
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York, PA
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Customer Information			Project Information			Parameter/Method Request for Analysis												
Purchase Order	138604	Project Name	SA- Artesia Refinery-Sitewide GW	A	VOC (8260) Select													
Work Order		Project Number		B	GRO (8015M)													
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	DRO (8015M)													
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se													
Address	PO Box 159	Address	PO Box 159	E	Total Metals (6020/7470) Hg, Ni, V													
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	F	Anions (300) Cl, F, SO ₄ , Cations (Ca, Mg, K, Na) TDS													
Phone	(575) 748-6733	Phone	(575) 748-6733	G	Cyanide (9014)													
Fax	(575) 748-5421	Fax	(575) 748-5421	H	Nitrate/Nitrite as N (preserved)													
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se													
				J	Dis. Metals (6020/7470) Hg, Ni, V													
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold	
1	mw-128-0414	04/29/14	1140	H ₂ O	1.8	6	X	X										
2	mw-114-0414	04/29/14	1235	H ₂ O	1.8	6	X	X										
3	mw-115-0414	04/29/14	1320	H ₂ O	1.8	6	X	X										
4	mw-116-0414	04/29/14	1400	H ₂ O	1.8	6	X	X										
5	mw-125-0414	04/29/14	1435	H ₂ O	1.8	6	X	X										
6	EB-18-0414	04/29/14	1520	H ₂ O	1.8	6	X	X										
7	mw-117-0414	04/30/14	0920	H ₂ O	1.8	6	X	X										
8	mw-118-0414	04/30/14	1000	H ₂ O	1.8	6	X	X										
9	mw-119-0414	04/30/14	1040	H ₂ O	1.8	6	X	X										
10	Dup-15-0414	04/30/14		H ₂ O	1.8	6	X	X										

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Sara Sany Sany		Fed X		☒ Std 10 WK days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour			
Relinquished by:		Date:	Time:	Received by:		Notes:	
Sara Sany		04/30/14	1500	Kustin E.		10 Work Days TAT. CC Pam Krueger/Arcadis	
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID	
Sara Sany		5.1.14	9:30	Kustin E.		Cooler Temp.	
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		QC Package: (Check One Box Below)	
						☒ Level 2 Std QC ☐ TRRP ChkList	
						☐ Level 3 Std QC/Row da ☐ TRRP Level 4	
						☐ Level 4 SW646/CLP	
						☐ Other/EOD	

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

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Everett, WA
+1 425 356 2600

Fort Collins, CO
+1 970 490 1511
Holland, MI
+1 616 399 6070

Chain of Custody Form

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COC ID: 100937

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+1 281 530 5656
Middletown, PA
+1 717 944 5541

Spring City, PA
+1 610 948 4903
Salt Lake City, UT
+1 801 266 7700

South Charleston, WV
+1 304 356 3168
York, PA
+1 717 505 5280

Customer Information				Project Information				Parameter/Method Request for Analysis															
Purchase Order	13394 173652			Project Name	SA- Artesia Refinery-Sample TEL			A VOC (8280) Select															
Work Order				Project Number				B GRO (8015M)															
Company Name	Navajo Refining Company			Bill To Company	Navajo Refining Company			C DRO (8015M)															
Send Report To	Aaron Strange			Invoice Attn	Carrie Hernandez			D Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se															
Address	PO Box 159			Address	PO Box 159			E Total Metals (6020/7470) Hg, Ni, V															
City/State/Zip	Artesia, NM 88211			City/State/Zip	Artesia, NM 88211			F Anions (300) Cl, F, SO4, Cations (Ca, Mg, K, Na) TDS															
Phone	(575) 748-6733			Phone	(575) 748-6733			G Cyanide (9014)															
Fax	(575) 746-5421			Fax	(575) 746-5421			H Nitrate/Nitrite as N (preserved)															
e-Mail Address	robert.combs@navajo-refining.com			e-Mail Address	robert.combs@navajo-refining.com			I Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se															
								J Dis. Metals (6020/7470) Hg, Ni, V															

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	TEL-1-0414	04/29/14	0900	H2O	1.8	6	X	X									
2	Dup-14-0414	04/29/14		H2O	1.8	6	X	X									
3	TEL-2-0414	04/29/14	0930	H2O	1.8	6	X	X									
4	TEL-3-0414	04/29/14	1005	H2O	1.8	6	X	X									
5	TEL-4-0414	04/29/14	1030	H2O	1.8	6	X	X									
6	mw-49-0414	04/29/14	1105	H2O	1.8	6	X	X									
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign <i>So. J. Jerry San Jerry</i>				Shipment Method <i>FEDEX</i>		Required Turnaround Time: (Check Box) ☒ Std. 10 WK days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour ☐ Other _____				Results Due Date: _____			
Relinquished by: <i>So. J. Jerry</i>		Date: <i>04/30/14</i>	Time: <i>1500</i>	Received by:		Notes: 10 Work Days TAT. CC Perm Krueger/Aracdis							
Relinquished by:		Date: <i>5-10-14</i>	Time: <i>9:30</i>	Received by (Laboratory): <i>Robert Combs</i>		Cooler ID		Cooler Temp.		QC Package: (Check One Box Below) ☒ Level 2 Std QC ☐ Level 3 Std QC/Row da ☐ Level 4 SW846/CLP ☐ Other/EDD			
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):						☐ TRRP Chk-List ☐ TRRP Level 4			
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035													

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+1 425 356 2600

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Chain of Custody Form

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COC ID: 97165

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+1 281 530 5656
Middletown, PA
+1 717 944 5541

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Salt Lake City, UT
+1 801 266 7700

South Charleston, WV
+1 304 356 3168
York, PA
+1 717 505 5280

Customer Information				Project Information				ALS Project Manager:												ALS Work Order #:			
Parameter/Method Request for Analysis																							
Purchase Order	173654	Project Name	SA- Artesia Refinery-Sewer TMD	A	VOC (8260) Select																		
Work Order		Project Number		B	GRO (8015M)																		
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	DRO (8015M)																		
Send Report To	Aaron Strange	Invoice Attn	Carrie Hernandez	D	Total Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se																		
Address	PO Box 159	Address	PO Box 159	E	Total Metals (6020/7470) Hg, Ni, V																		
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	F	Anions (300) Cl, F, SO ₄ , Cations (Ca, Mg, K, Na) TDS																		
Phone	(575) 748-8733	Phone	(575) 748-8733	G	Cyanide (9014)																		
Fax	(575) 746-5421	Fax	(575) 746-5421	H	Nitrate/Nitrite as N (preserved)																		
e-Mail Address	robert.combs@navajo-refining.com	e-Mail Address	robert.combs@navajo-refining.com	I	Dis. Metals (6020) As, Ba, Cr, Fe, Pb, Mn, Se																		
				J	Dis. Metals (6020/7470) Hg, Ni, V																		
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold						
1	MUN-46R-0414	04/30/14	0845	H ₂ O	1,8	3	X																
2	TB-032514-92	04/30/14	1500	H ₂ O	1,8	2	X																
3	EB-19-0414	04/30/14	1200	H ₂ O	1,8	6	X	X															
4																							
5																							
6																							
7																							
8																							
9																							
10																							

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Sara Sam Sanjmy		Fed X		☒ Std 10 WK days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour			
Relinquished by:	Date:	Time:	Received by:	Notes:			
Sara Sam Sanjmy	04/30/14	1500		10 Work Days TAT, CC Pam Krueger/Aracdis			
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)	
	5.1.14	9:30				☒ Level 2 Std QC ☐ Level 3 Std QC/Row da ☐ Level 4 SW846/CLP ☐ Other/EDD	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):				
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₃ 7-Other 8-4°C 9-5035							

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TRK# 0201	5797 1187 0002	THU - 01 MAY 10:30A PRIORITY OVERNIGHT
AB SGRA		77099 TX-US IAH
TRK# 0201	5797 1187 0013	THU - 01 MAY 10:30A PRIORITY OVERNIGHT
AB SGRA		77099 TX-US IAH
TRK# 0201	5797 1186 9980	THU - 01 MAY 10:30A PRIORITY OVERNIGHT
AB SGRA		77099 TX-US IAH

 ALS Environmental 10450 Standcliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL Date: 04/30/14 Time: 15:00 Name: Susan Sosa Company:		Seal Broken By: Date:
 ALS Environmental 10450 Standcliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL Date: 04/30/14 Time: 15:00 Name: Susan Sosa Company:		Seal Broken By: Date:
 ALS Environmental 10450 Standcliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL Date: 04/30/14 Time: 15:00 Name: Susan Sosa Company:		Seal Broken By: Date:
 ALS Environmental 10450 Standcliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL Date: 04/30/14 Time: 15:00 Name: Susan Sosa Company:		Seal Broken By: Date:

TRK# 5797 1187 0024 THU - 01 MAY 10:30A
0201 PRIORITY OVERNIGHT

AB SGRA

77099
TX-US IAH

TRK# 5797 1187 0057 THU - 01 MAY 10:30A
0201 PRIORITY OVERNIGHT

AB SGRA

77099
TX-US IAH

TRK# 5797 1187 0046 THU - 01 MAY 10:30A
0201 PRIORITY OVERNIGHT

AB SGRA

77099
TX-US IAH

TRK# 5797 1187 0035 THU - 01 MAY 10:30A
0201 PRIORITY OVERNIGHT

AB SGRA

77099
TX-US IAH

TRK# 5797 1186 9991 THU - 01 MAY 10:30A
0201 PRIORITY OVERNIGHT

AB SGRA

77099
TX-US IAH

 **ALS Environmental**
10450 Stancil Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL

Date: 04/30/19 Time: 1500
Name: Soni S622
Company: Soni S622

Seal Broken By:

Date:

 **ALS Environmental**
10450 Stancil Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL

Date: 04/30/19 Time: 1500
Name: Soni S622
Company: Soni S622

Seal Broken By:

Date:

 **ALS Environmental**
10450 Stancil Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL

Date: 04/30/19 Time: 1500
Name: Soni S622
Company: Soni S622

Seal Broken By:

Date:

 **ALS Environmental**
10450 Stancil Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL

Date: 04/30/19 Time: 1500
Name: Soni S622
Company: Soni S622

Seal Broken By:

Date:

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RIGHT SOLUTIONS | RIGHT PARTNER

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX

**Project: Navajo Refining Company - Artesia,
January 27, 2015**

Sample Receiving and Handling

All sample aliquots were received at the correct temperature, in the proper containers, and with the appropriate preservatives. Method specified holding times were not met for analyses on all samples.

Anions by Method 9056MOD

Laboratory Control Sample

Samples L733743-01 and 02 were analyzed in analytical batch WG755279. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -66, -67, -69, -70, -71, -72, and -73 were analyzed in analytical batch WG755284. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-56, -74, -75, -100, -101, and -102 were analyzed in analytical batch WG755463. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, and -122 were analyzed in analytical batch WG755572. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141, and -142 were analyzed in analytical batch WG755573. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-25, -26, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, -159, and -160 were analyzed in analytical batch WG755977. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-27, -28, -29, -30, -31, -32, -34, -35, -36, -37, -38, -39, -40, -43, -44, -45, -46, -47, -48, and -52 were analyzed in analytical batch WG755979. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -77, -78, -79, -80, -81, -82, -83, -84, -85, and -86 were analyzed in analytical batch WG755980. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX

**Project: Navajo Refining Company - Artesia,
January 27, 2015**

Samples L733743-87, -88, -90, -91, -92, -93, -94, -95, -96, -97, -98, and -99 were analyzed in analytical batch WG755981. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-28, -31, -40, -45, -108, -117, -119, -129, -138, and -150 were analyzed in analytical batch WG756286. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-66, -69, -70, -71, -72, and -73 were analyzed in analytical batch WG756784. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-53, -54, -55, -57, -58, -59, and -155 were analyzed in analytical batch WG756800. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-77, -78, -79, -80, -81, -82, -83, -84, -85, and -86 were analyzed in analytical batch WG757012. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample L733743-85 was analyzed in analytical batch WG757344. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample L733743-67 was analyzed in analytical batch WG758368. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample Duplicate Analysis

For analytical batch WG755279 sample duplicate analysis was performed on sample L732952-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755279 sample duplicate analysis was performed on sample L733283-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755284 sample duplicate analysis was performed on sample L733743-05. The relative percent difference exceeded the method limits for Chloride and Sulfate.

For analytical batch WG755284 sample duplicate analysis was performed on sample L733743-14. The relative percent difference exceeded the method limits for Chloride.

For analytical batch WG755463 sample duplicate analysis was performed on sample L732989-01. The relative percent differences were within the method limits for target analytes reported from this batch.

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX

**Project: Navajo Refining Company - Artesia,
January 27, 2015**

For analytical batch WG755463 sample duplicate analysis was performed on sample L733018-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755463 sample duplicate analysis was performed on sample L733146-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755463 sample duplicate analysis was performed on sample L733046-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755572 sample duplicate analysis was performed on sample L733743-122. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755572 sample duplicate analysis was performed on sample L733743-109. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755573 sample duplicate analysis was performed on sample L733743-133. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755573 sample duplicate analysis was performed on sample L733743-124. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755977 sample duplicate analysis was performed on sample L733743-158. The relative percent difference exceeded the method limits for Chloride.

For analytical batch WG755977 sample duplicate analysis was performed on sample L733743-160. The relative percent difference exceeded the method limits for Chloride and Sulfate.

For analytical batch WG755979 sample duplicate analysis was performed on sample L733743-39. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755979 sample duplicate analysis was performed on sample L733743-29. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755980 sample duplicate analysis was performed on sample L733743-60. The relative percent difference exceeded the method limits for Chloride and Sulfate.

For analytical batch WG755980 sample duplicate analysis was performed on sample L733743-63. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755981 sample duplicate analysis was performed on sample L733881-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755981 sample duplicate analysis was performed on sample L733542-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG756286 sample duplicate analysis was performed on sample L733884-01. The relative percent differences were within the method limits for target analytes reported from this batch.

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX

**Project: Navajo Refining Company - Artesia,
January 27, 2015**

For analytical batch WG756784 sample duplicate analysis was performed on sample L735467-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG756784 sample duplicate analysis was performed on sample L735897-02. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG756800 sample duplicate analysis was performed on sample L734837-03. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG757012 sample duplicate analysis was performed on sample L733743-84. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG757012 sample duplicate analysis was performed on sample L734287-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG757344 sample duplicate analysis was performed on sample L735431-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG757344 sample duplicate analysis was performed on sample L735078-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG758368 sample duplicate analysis was performed on sample L736163-01. The relative percent differences were within the method limits for target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG755279 matrix spike/matrix spike duplicate analysis was performed on sample L733584-02. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755284 matrix spike/matrix spike duplicate analysis was performed on sample L733743-11. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755463 matrix spike/matrix spike duplicate analysis was performed on sample L733124-02. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755572 matrix spike/matrix spike duplicate analysis was performed on sample L733743-113. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755573 matrix spike/matrix spike duplicate analysis was performed on sample L733743-123. The matrix spike recoveries were below laboratory control limits for Fluoride. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX

**Project: Navajo Refining Company - Artesia,
January 27, 2015**

For analytical batch WG755977 matrix spike/matrix spike duplicate analysis was performed on sample L733743-159. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755979 matrix spike/matrix spike duplicate analysis was performed on sample L733743-30. The matrix spike recoveries were below laboratory control limits for Fluoride. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755980 matrix spike/matrix spike duplicate analysis was performed on sample L733743-61. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755981 matrix spike/matrix spike duplicate analysis was performed on sample L733743-88. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG756286 matrix spike/matrix spike duplicate analysis was performed on sample L733743-129. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG756784 matrix spike/matrix spike duplicate analysis was performed on sample L735467-03. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG756800 matrix spike/matrix spike duplicate analysis was performed on sample L734613-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG757012 matrix spike/matrix spike duplicate analysis was performed on sample L734867-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG757344 matrix spike/matrix spike duplicate analysis was performed on sample L735338-10. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Precision for batch WG758368 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Total Dissolved Solids by Method 2540 C-2011

Laboratory Control Sample

Samples L733743-01, -02, -03, -04, -05, -06, -07, -08, and -09 were analyzed in analytical batch WG754846. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes

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reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-10, -11, -12, -13, -14, and -15 were analyzed in analytical batch WG754847. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-104, -107, -111, -114, -117, -119, -120, -121, -125, -126, -127, -128, -129, -131, -132, -139, -141, -142, -143, and -146 were analyzed in analytical batch WG755020. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-25, -26, -29, -34, -38, -40, -43, -44, -45, -48, -52, -53, -57, -59, -60, -63, -66, -147, -158, and -159 were analyzed in analytical batch WG755137. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-69, -70, -71, -72, -73, -74, -77, -80, -81, -82, -83, -84, -85, -88, -91, -92, -98, -100, and -101 were analyzed in analytical batch WG755139. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-102, -103, -105, -106, -108, -109, -110, -112, -113, and -115 were analyzed in analytical batch WG755145. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-116, -118, -122, -123, -124, -130, -133, -134, -135, and -136 were analyzed in analytical batch WG755146. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-27, -28, -30, -31, -137, -138, -140, -144, -145, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, and -160 were analyzed in analytical batch WG755343. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-32, -35, -36, -37, -39, -46, -47, -54, -55, -56, -58, -61, -62, -67, -78, -79, -86, -87, -90, and -93 were analyzed in analytical batch WG755344. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-94, -95, -96, -97, and -99 were analyzed in analytical batch WG755345. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

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Sample L733743-75 was analyzed in analytical batch WG756114. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample Duplicate Analysis

For analytical batch WG754846 sample duplicate analysis was performed on sample L733699-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG754847 sample duplicate analysis was performed on sample L733743-10. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG754847 sample duplicate analysis was performed on sample L733851-20. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755020 sample duplicate analysis was performed on sample L733743-104. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755020 sample duplicate analysis was performed on sample L733743-146. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755137 sample duplicate analysis was performed on sample L733743-147. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755137 sample duplicate analysis was performed on sample L733743-66. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755139 sample duplicate analysis was performed on sample L733743-100. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755139 sample duplicate analysis was performed on sample L733743-98. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755145 sample duplicate analysis was performed on sample L733743-102. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755146 sample duplicate analysis was performed on sample L733743-116. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755343 sample duplicate analysis was performed on sample L733743-137. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755343 sample duplicate analysis was performed on sample L733743-31. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755344 sample duplicate analysis was performed on sample L733743-32. The relative percent differences were within the method limits for target analytes reported from this batch.

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For analytical batch WG755344 sample duplicate analysis was performed on sample L733743-93. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755345 sample duplicate analysis was performed on sample L733851-06. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755345 sample duplicate analysis was performed on sample L733902-04. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG756114 sample duplicate analysis was performed on sample L733743-75. The relative percent differences were within the method limits for target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG754846 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG754847 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755020 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755137 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755139 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755145 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755146 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755343 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755344 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755345 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG756114 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Nitrate-Nitrite by Method 353.2

Laboratory Control Sample

Samples L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, and -29 were analyzed in analytical batch WG755162. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

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Samples L733743-30, -31, -32, -34, -35, -36, -37, -38, -39, -40, -43, -44, -45, -46, -47, -48, -52, -53, -54, and -55 were analyzed in analytical batch WG755168. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72, -73, -74, -75, -77, -78, and -79 were analyzed in analytical batch WG755260. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, and -100 were analyzed in analytical batch WG755261. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -112, -113, -114, -115, -116, -117, -118, -119, and -120 were analyzed in analytical batch WG755577. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, and -140 were analyzed in analytical batch WG755578. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, -159, and -160 were analyzed in analytical batch WG755581. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample L733743-111 was analyzed in analytical batch WG755868. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample Duplicate Analysis

For analytical batch WG755162 sample duplicate analysis was performed on sample L733743-15. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755162 sample duplicate analysis was performed on sample L733743-10. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755168 sample duplicate analysis was performed on sample L733743-40. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755168 sample duplicate analysis was performed on sample L733743-43. The relative percent differences were within the method limits for target analytes reported from this batch.

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For analytical batch WG755260 sample duplicate analysis was performed on sample L733743-78. The relative percent difference exceeded the method limits for Nitrate-Nitrite.

For analytical batch WG755260 sample duplicate analysis was performed on sample L733743-67. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755261 sample duplicate analysis was performed on sample L733743-88. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755261 sample duplicate analysis was performed on sample L733743-90. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755577 sample duplicate analysis was performed on sample L733743-110. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755577 sample duplicate analysis was performed on sample L733743-119. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755578 sample duplicate analysis was performed on sample L733743-130. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755578 sample duplicate analysis was performed on sample L733743-139. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755581 sample duplicate analysis was performed on sample L733743-150. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755581 sample duplicate analysis was performed on sample L733743-159. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755868 sample duplicate analysis was performed on sample L733884-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755868 sample duplicate analysis was performed on sample L733889-01. The relative percent differences were within the method limits for target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG755162 matrix spike/matrix spike duplicate analysis was performed on sample L733743-29. The matrix spike recoveries were below laboratory control limits for Nitrate-Nitrite. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755168 matrix spike/matrix spike duplicate analysis was performed on sample L733743-44. The matrix spike recoveries were below laboratory control limits for Nitrate-Nitrite. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755260 matrix spike/matrix spike duplicate analysis was performed on sample L733743-79. The matrix spike recoveries were below laboratory control limits for Nitrate-Nitrite. The relative percent difference was within

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laboratory limits for all target analytes reported from this batch.

For analytical batch WG755261 matrix spike/matrix spike duplicate analysis was performed on sample L733743-99. The matrix spike recoveries were below laboratory control limits for Nitrate-Nitrite. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755577 matrix spike/matrix spike duplicate analysis was performed on sample L733743-120. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755578 matrix spike/matrix spike duplicate analysis was performed on sample L733743-140. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755581 matrix spike/matrix spike duplicate analysis was performed on sample L733743-160. The matrix spike recoveries were below laboratory control limits for Nitrate-Nitrite. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755868 matrix spike/matrix spike duplicate analysis was performed on sample L733605-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Cyanide by Method 9012B

Laboratory Control Sample

Samples L733743-01, -02, and -03 were analyzed in analytical batch WG755288. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -100, -102, -104, -107, -144, -148, and -154 were analyzed in analytical batch WG755292. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-31, -55, -69, -77, -79, -91, -92, -93, -94, -95, -96, -98, -155, -159, and -160 were analyzed in analytical batch WG755528. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample Duplicate Analysis

For analytical batch WG755288 sample duplicate analysis was performed on sample L733811-02. The relative percent differences were within the method limits for target analytes reported from this batch.

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For analytical batch WG755288 sample duplicate analysis was performed on sample L733743-01. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755292 sample duplicate analysis was performed on sample L733743-05. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755292 sample duplicate analysis was performed on sample L733743-10. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755528 sample duplicate analysis was performed on sample L733743-31. The relative percent differences were within the method limits for target analytes reported from this batch.

For analytical batch WG755528 sample duplicate analysis was performed on sample L733743-92. The relative percent differences were within the method limits for target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG755288 matrix spike/matrix spike duplicate analysis was performed on sample L733618-05. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755292 matrix spike/matrix spike duplicate analysis was performed on sample L733743-04. The matrix spike recoveries were below laboratory control limits for Cyanide. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755528 matrix spike/matrix spike duplicate analysis was performed on sample L733620-07. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Mercury by Method 7470A

Laboratory Control Sample

Samples L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -144, -148, -154, -155, and -159 were analyzed in analytical batch WG754885. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch.

Samples L733743-31, -55, -69, -77, -79, -91, -92, -93, -94, -95, -96, -98, -100, -102, -104, -107, and -160 were analyzed in analytical batch WG754886. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG754885 matrix spike/matrix spike duplicate analysis was performed on sample L733743-15. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Quality Control Summary

SDG: L733743

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For analytical batch WG754886 matrix spike/matrix spike duplicate analysis was performed on sample L733743-94. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Trace Metals by Method 6020

Laboratory Control Sample

Samples L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, and -29 were analyzed in analytical batch WG755200. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, and -49 were analyzed in analytical batch WG755201. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118, and -119 were analyzed in analytical batch WG755204. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, and -139 were analyzed in analytical batch WG755205. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, and -159 were analyzed in analytical batch WG755207. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, and -72 were analyzed in analytical batch WG755208. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, and -94 were analyzed in analytical batch WG755209. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-95, -96, -97, -98, -99, and -160 were analyzed in analytical batch WG755211. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch.

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The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, and -15 were analyzed in analytical batch WG755434. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-33, -35, -36, -37, -39, -43, -44, and -45 were analyzed in analytical batch WG756145. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG755200 matrix spike/matrix spike duplicate analysis was performed on sample L733743-02. The matrix spike recoveries were above laboratory control limits for Calcium. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch. Calcium did not meet the method limit criteria for the serial dilution.

For analytical batch WG755201 matrix spike/matrix spike duplicate analysis was performed on sample L733743-30. The matrix spike recoveries were above laboratory control limits for Manganese. The matrix spike recoveries were below laboratory control limits for Calcium, Manganese, and Sodium. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch. Nickel did not meet the method limit criteria for the serial dilution.

For analytical batch WG755204 matrix spike/matrix spike duplicate analysis was performed on sample L733743-100. The matrix spike recoveries were above laboratory control limits for Calcium and Sodium. The matrix spike recoveries were below laboratory control limits for Selenium, Sodium, and Zinc. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch. Selenium did not meet the method limit criteria for the serial dilution.

For analytical batch WG755205 matrix spike/matrix spike duplicate analysis was performed on sample L733743-120. The matrix spike recoveries were above laboratory control limits for Calcium and Sodium. The matrix spike recoveries were below laboratory control limits for Calcium. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755207 matrix spike/matrix spike duplicate analysis was performed on sample L733743-147. The matrix spike recoveries were below laboratory control limits for Calcium and Sodium. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755208 matrix spike/matrix spike duplicate analysis was performed on sample L733743-50. The matrix spike recoveries were above laboratory control limits for Calcium, Iron, Manganese, Potassium, and Sodium. The matrix spike recoveries were below laboratory control limits for Calcium. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch. Manganese, Potassium, and Sodium did not meet the method limit criteria for the serial dilution.

Quality Control Summary

SDG: L733743

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For analytical batch WG755209 matrix spike/matrix spike duplicate analysis was performed on sample L733743-73. The matrix spike recoveries were below laboratory control limits for Calcium and Sodium. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch. Calcium and Sodium did not meet the method limit criteria for the serial dilution.

For analytical batch WG755211 matrix spike/matrix spike duplicate analysis was performed on sample L733743-160. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755434 matrix spike/matrix spike duplicate analysis was performed on sample L733743-01. The matrix spike recoveries were above laboratory control limits for Calcium,Dissolved. The matrix spike recoveries were below laboratory control limits for Boron,Dissolved, Calcium,Dissolved, Iron,Dissolved, Manganese,Dissolved, Sodium,Dissolved, and Zinc,Dissolved. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch. Manganese,Dissolved did not meet the method limit criteria for the serial dilution.

For analytical batch WG756145 matrix spike/matrix spike duplicate analysis was performed on sample L733743-33. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Blank Analysis

For batch WG755200, the concentration of Nickel was above the method reporting limit.

For batch WG755201, the concentrations of Chromium and Nickel were above the method reporting limit.

For batch WG755211, the concentration of Chromium was above half of the method reporting limit.

For batch WG755434, the concentration of Chromium,Dissolved was above the method reporting limit.

For batch WG755209, the concentration of Chromium and Lead were above the method detection limit.

The remaining method blanks, initial calibration blank, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit except for WG755204 had a detection of Boron in the CCB.

Volatile TPH by Method 8015D/GRO

Laboratory Control Sample

Samples L733743-01, -10, -11, -12, -13, -14, -15, -25, -26, -27, and -28 were analyzed in analytical batch WG754942. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-30, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49, and -50 were analyzed in analytical batch WG754943. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Quality Control Summary

SDG: L733743

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Samples L733743-51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -66, -71, and -75 were analyzed in analytical batch WG754944. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-94, -95, -96, -97, -98, -100, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, and -112 were analyzed in analytical batch WG754945. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, and -132 were analyzed in analytical batch WG754946. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-135, -136, -137, -138, -143, -145, -146, -147, -151, -152, -153, -154, -155, -156, -157, and -158 were analyzed in analytical batch WG754947. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-159 and 160 were analyzed in analytical batch WG754948. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample L733743-02 was analyzed in analytical batch WG755413. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-03, -04, -05, -06, -07, -08, -09, -29, -79, -93, and -99 were analyzed in analytical batch WG755883. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-69, -70, -72, -73, and -74 were analyzed in analytical batch WG755923. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-133, -148, -149, and -150 were analyzed in analytical batch WG756173. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG754942 matrix spike/matrix spike duplicate analysis was performed on sample L733743-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

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For analytical batch WG754943 matrix spike/matrix spike duplicate analysis was performed on sample L733743-30. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754944 matrix spike/matrix spike duplicate analysis was performed on sample L733743-51. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754945 matrix spike/matrix spike duplicate analysis was performed on sample L733743-102. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754946 matrix spike/matrix spike duplicate analysis was performed on sample L733743-123. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754947 matrix spike/matrix spike duplicate analysis was performed on sample L733743-153. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754948 matrix spike/matrix spike duplicate analysis was performed on sample L733743-159. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755413 matrix spike/matrix spike duplicate analysis was performed on sample L733020-03. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755883 matrix spike/matrix spike duplicate analysis was performed on sample L733869-15. The matrix spike recoveries were above laboratory control limits for TPH (GC/FID) Low Fraction. The relative percent difference exceeded laboratory limits for TPH (GC/FID) Low Fraction.

For analytical batch WG755923 matrix spike/matrix spike duplicate analysis was performed on sample L734685-03. The spiked sample was evaluated only for the parameters requested on that sample and did not require the parameters reported in this SDG. Therefore, no data is included in this report for this MS/D sample.

For analytical batch WG755923 matrix spike/matrix spike duplicate analysis was performed on sample L733743-69. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG756173 matrix spike/matrix spike duplicate analysis was performed on sample L733869-44. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Quality Control Summary SDG: L733743

For: ARCADIS US - TX

**Project: Navajo Refining Company - Artesia,
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Volatile Organic Compounds by Method 8260B

Laboratory Control Sample

Samples L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, and -20 were analyzed in analytical batch WG754786. The laboratory control sample associated with these samples had all target analytes within method limits except for 1,1,1-Trichloroethane. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample L733743-21 was analyzed in analytical batch WG754787. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, and -44 were analyzed in analytical batch WG754909. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch except for Bromomethane. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, and -65 were analyzed in analytical batch WG754914. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, and -86 were analyzed in analytical batch WG754915. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, and -105 were analyzed in analytical batch WG754916. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, and -125 were analyzed in analytical batch WG754917. The laboratory control sample associated with these samples had all target analytes within method limits except for Chloroethane and Naphthalene. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, and -141 were analyzed in analytical batch WG754918. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference exceeded laboratory limits for Acetone.

Samples L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, and -162 were analyzed in analytical batch WG754919. The laboratory control sample associated with these samples had all target analytes within method limits except for 2-Butanone (MEK). The relative percent difference exceeded laboratory limits for 2-Butanone (MEK).

Samples L733743-06, -07, -08, -09, -10, -11, and -12 were analyzed in analytical batch WG755340. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-106, -107, -110, and -115 were analyzed in analytical batch WG755673. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The

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relative percent difference exceeded laboratory limits for Bromomethane.

Samples L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, and -145 were analyzed in analytical batch WG755736. The laboratory control sample associated with these samples had all target analytes within method limits except for Bromomethane. The relative percent difference exceeded laboratory limits for Bromomethane.

Samples L733743-128, -135, -137, -138, -139, -142, -143, and -144 were analyzed in analytical batch WG755901. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-13, -14, -15, -26, -27, and -28 were analyzed in analytical batch WG756231. The laboratory control sample associated with these samples had all target analytes within method limits except for Chloroethane. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Sample L733743-97 was analyzed in analytical batch WG756371. The laboratory control sample associated with this sample was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-148, -150, -158, -159, and -160 were analyzed in analytical batch WG756413. The laboratory control sample associated with these samples had all target analytes within method limits except for 2-Butanone (MEK) and Acetone. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG754786 matrix spike/matrix spike duplicate analysis was performed on sample L733743-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754787 matrix spike/matrix spike duplicate analysis was performed on sample L733630-02. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754909 matrix spike/matrix spike duplicate analysis was performed on sample L733743-25. The matrix spike recoveries except for 2-Hexanone and 4-Methyl-2-pentanone (MIBK) and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754914 matrix spike/matrix spike duplicate analysis was performed on sample L733743-45. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754915 matrix spike/matrix spike duplicate analysis was performed on sample L733743-67. The matrix spike recoveries were above laboratory control limits for Bromoform and Chlorodibromomethane. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference exceeded laboratory limits for 1,1-Dichloroethene, Carbon disulfide, and Vinyl chloride.

For analytical batch WG754916 matrix spike/matrix spike duplicate analysis was performed on sample L733743-99. The matrix spike recoveries were within laboratory control limits for all target analytes reported from this batch. The relative percent difference exceeded laboratory limits for Bromomethane.

For analytical batch WG754917 matrix spike/matrix spike duplicate analysis was performed on sample L733743-115. The matrix spike recoveries were above laboratory control limits for 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-

Quality Control Summary

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Trichloroethane, 1,2-Dibromoethane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 2-Butanone (MEK), 2-Hexanone, 4-Methyl-2-pentanone (MIBK), Bromodichloromethane, Bromoform, Chlorobenzene, Chlorodibromomethane, Chloroform, cis-1,3-Dichloropropene, Naphthalene, n-Butylbenzene, o-Xylene, Styrene, trans-1,3-Dichloropropene, and Xylenes, Total. The matrix spike recoveries were below laboratory control limits for Benzene and Chloroethane. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference exceeded laboratory limits for 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,2,4-Trimethylbenzene, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 2-Hexanone, 4-Methyl-2-pentanone (MIBK), Bromodichloromethane, Bromoform, Bromomethane, Carbon tetrachloride, Chlorobenzene, Chlorodibromomethane, Chloroform, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, m&p-Xylenes, Methyl tert-butyl ether, Naphthalene, n-Butylbenzene, o-Xylene, p-Isopropyltoluene, sec-Butylbenzene, Styrene, Tetrachloroethene, Toluene, trans-1,3-Dichloropropene, Trichloroethene, and Xylenes, Total.

For analytical batch WG754918 matrix spike/matrix spike duplicate analysis was performed on sample L733743-126. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG754919 matrix spike/matrix spike duplicate analysis was performed on sample L733743-156. The matrix spike recoveries were above laboratory control limits for 2-Butanone (MEK). The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755340 matrix spike/matrix spike duplicate analysis was performed on sample L733584-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755673 matrix spike/matrix spike duplicate analysis was performed on sample L734213-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG755736 matrix spike/matrix spike duplicate analysis was performed on sample L733686-01. The matrix spike recoveries were below laboratory control limits for Benzene. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG755901 matrix spike/matrix spike duplicate analysis was performed on sample L733818-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

For analytical batch WG756231 matrix spike/matrix spike duplicate analysis was performed on sample L733847-05. The matrix spike recoveries were above laboratory control limits for Acetone and Naphthalene. The spike recoveries were within limits for the remaining target compounds reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

For analytical batch WG756371 matrix spike/matrix spike duplicate analysis was performed on sample L734135-06. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

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For analytical batch WG756413 matrix spike/matrix spike duplicate analysis was performed on sample L733743-158. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Semi-Volatile Organic Compounds by Method 8270C

Laboratory Control Sample

Samples L733743-01, -02, -03, -04, and -05 were analyzed in analytical batch WG754898. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference exceeded laboratory limits for Benzo(a)pyrene.

Samples L733743-06, -07, -08, -09, and -11 were analyzed in analytical batch WG754905. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-10, -12, -13, -14, and -15 were analyzed in analytical batch WG755104. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG754898 was evaluated using the LCS/LCSD. The RPDs exceeded laboratory control limits for Benzo(a)pyrene. The other target analytes were within limits

For analytical batch WG754905 matrix spike/matrix spike duplicate analysis was performed on sample L733682-02. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes reported from this batch.

Precision for batch WG755104 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Diesel Range Organics by Method 8015

Laboratory Control Sample

Samples L733743-43, -44, -45, -48, -49, -50, -51, -52, -53, -57, -59, -60, -63, -66, -69, -70, -71, -72, -73, and -40 were analyzed in analytical batch WG755117. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-100, -74, -75, -77, -80, -81, -82, -83, -84, -85, -88, -91, -92, -98, -101, -102, -103, -105, -106, and -108 were analyzed in analytical batch WG755118. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Quality Control Summary

SDG: L733743

For: ARCADIS US - TX

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Samples L733743-27, -28, -30, -31, -32, -33, -35, -36, -39, -37, -41, -42, -46, -47, -54, -55, -58, -61, -62, and -67 were analyzed in analytical batch WG755119. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-78, -79, -86, -87, -90, -93, -94, -95, -96, -97, -99, -104, -107, -111, -114, -117, -119, -120, -121, and -125 were analyzed in analytical batch WG755121. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-109, -110, -112, -113, -115, -116, -126, -127, -128, -129, -131, -132, -139, -141, -142, -143, -146, -147, -158, and -159 were analyzed in analytical batch WG755122. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-01, -02, -03, -04, and -05 were analyzed in analytical batch WG755177. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-118, -122, -123, -124, -130, -133, -135, -136, -137, -138, -140, -144, -145, -148, -149, -150, -151, -152, -153, and -154 were analyzed in analytical batch WG755478. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-155, -156, -157, and -160 were analyzed in analytical batch WG755492. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Samples L733743-06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -29, -34, and -38 were analyzed in analytical batch WG755545. The laboratory control sample associated with these samples was within the laboratory control limits for all target analytes reported from this batch. The relative percent difference was within laboratory limits for all target analytes reported from this batch.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG755117 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755118 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755119 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755121 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755122 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755177 was evaluated using the LCS/LCSD. The RPDs were within method limits.

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Precision for batch WG755478 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755492 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Precision for batch WG755545 was evaluated using the LCS/LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit except for WG755177.

ESC Representative
ESC Lab Sciences



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Report Summary

Tuesday January 27, 2015

Report Number: L733743

Samples Received: 11/14/14

Client Project: TX000836.0008.00004

Description: Navajo Refining Company - Artesia, NM

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Pam Langford , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/B10041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
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12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Case Narrative

Tuesday January 27, 2015

Report Number: L733743

Samples Received: 11/14/14

Client Project: TX000836.0008.00004

Description: Navajo Refining Company - Artesia, NM

Other Comments

Concentrations above the laboratory reporting limit for DRO/ORO were noted in the method blank associated with samples -01 through -05. These samples were reextracted and reanalyzed, although samples -02 through -05 were below the laboratory detection limit in the initial analysis. The confirmation analysis performed outside of the method specified holding time confirms the initial in-hold results. Re-extraction was also performed for the DRO/ORO analysis of sample -88 due to the exceedingly high surrogate recovery in the initial analysis. The re-extraction/reanalysis was performed outside holding time for the method, and the surrogate recovery was within range. However, while concentrations were seen and chromatographic comparisons consistent in both analyses for sample -88, a greater than 40% difference was seen between the two results. The results obtained within holding time for DRO/ORO analysis is reported as primary for all samples discussed above.



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-100

Sample ID : MW-43

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 11:50

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	750000	1000	20000	ug/l		300.0	11/20/14	20
Fluoride	780	9.9	100	ug/l		300.0	11/20/14	1
Sulfate	98000	77.	5000	ug/l		300.0	11/20/14	1
Cyanide	2.5	1.8	5.0	ug/l	J	9012B	11/21/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/19/14	1
Dissolved Solids	2300000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	9.0	0.25	2.0	ug/l		6020	11/25/14	1
Barium	420	0.36	5.0	ug/l		6020	11/25/14	1
Calcium	200000	460	10000	ug/l	V	6020	12/02/14	10
Chromium	1.3	0.54	1.0	ug/l		6020	11/25/14	1
Iron	U	50.	100	ug/l		6020	11/25/14	1
Lead	1.8	0.24	2.0	ug/l	J	6020	11/25/14	1
Manganese	370	0.25	5.0	ug/l		6020	11/25/14	1
Nickel	5.9	0.35	2.0	ug/l		6020	11/25/14	1
Potassium	610	37.	1000	ug/l	J	6020	11/25/14	1
Selenium	22.	0.38	2.0	ug/l	01J6	6020	11/25/14	1
Sodium	590000	1100	10000	ug/l	V	6020	12/02/14	10
Vanadium	0.62	0.18	5.0	ug/l	J	6020	11/25/14	1
Mercury	U	0.049	0.20	ug/l		7470A	11/18/14	1
TPH (GC/FID) Low Fraction	4800	310	1000	ug/l		8015D/G	11/20/14	10
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	116.			% Rec.		8015D/G	11/20/14	10
Volatile Organics								
Acetone	U	100	500	ug/l		8260B	11/22/14	10
Benzene	1100	3.3	10.	ug/l		8260B	11/22/14	10
Bromodichloromethane	U	3.8	10.	ug/l		8260B	11/22/14	10
Bromoform	U	4.7	10.	ug/l		8260B	11/22/14	10
Bromomethane	U	8.7	50.	ug/l		8260B	11/22/14	10
n-Butylbenzene	U	3.6	10.	ug/l		8260B	11/22/14	10
sec-Butylbenzene	7.8	3.6	10.	ug/l	J	8260B	11/22/14	10
Carbon disulfide	3.7	2.8	10.	ug/l	J	8260B	11/22/14	10
Carbon tetrachloride	U	3.8	10.	ug/l		8260B	11/22/14	10
Chlorobenzene	U	3.5	10.	ug/l		8260B	11/22/14	10
Chlorodibromomethane	U	3.3	10.	ug/l		8260B	11/22/14	10
Chloroethane	U	4.5	50.	ug/l		8260B	11/22/14	10
Chloroform	U	3.2	50.	ug/l		8260B	11/22/14	10

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tag I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-43

Collected By : SU/HMI Team
Collection Date : 11/13/14 11:50

ESC Sample # : L733743-100

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloromethane	U	2.8	25.	ug/l		8260B	11/22/14	10
1,2-Dibromoethane	U	3.8	10.	ug/l		8260B	11/22/14	10
1,1-Dichloroethane	U	2.6	10.	ug/l		8260B	11/22/14	10
1,2-Dichloroethane	U	3.6	10.	ug/l		8260B	11/22/14	10
1,1-Dichloroethene	U	4.0	10.	ug/l		8260B	11/22/14	10
cis-1,2-Dichloroethene	U	2.6	10.	ug/l		8260B	11/22/14	10
trans-1,2-Dichloroethene	U	4.0	10.	ug/l		8260B	11/22/14	10
1,2-Dichloropropane	U	3.1	10.	ug/l		8260B	11/22/14	10
cis-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/22/14	10
trans-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/22/14	10
Ethylbenzene	21.	3.8	10.	ug/l		8260B	11/22/14	10
Isopropylbenzene	50.	3.3	10.	ug/l		8260B	11/22/14	10
p-Isopropyltoluene	U	3.5	10.	ug/l		8260B	11/22/14	10
2-Butanone (MEK)	U	39.	100	ug/l		8260B	11/22/14	10
2-Hexanone	U	38.	100	ug/l		8260B	11/22/14	10
Methylene Chloride	U	10.	50.	ug/l		8260B	11/22/14	10
4-Methyl-2-pentanone (MIBK)	U	21.	100	ug/l		8260B	11/22/14	10
Methyl tert-butyl ether	11.	3.7	10.	ug/l		8260B	11/22/14	10
Naphthalene	U	10.	50.	ug/l		8260B	11/22/14	10
n-Propylbenzene	46.	3.5	10.	ug/l		8260B	11/22/14	10
Styrene	U	3.1	10.	ug/l		8260B	11/22/14	10
1,1,1,2-Tetrachloroethane	U	3.8	10.	ug/l		8260B	11/22/14	10
1,1,2,2-Tetrachloroethane	U	1.3	10.	ug/l		8260B	11/22/14	10
Tetrachloroethene	U	3.7	10.	ug/l		8260B	11/22/14	10
Toluene	30.	7.8	50.	ug/l	J	8260B	11/22/14	10
1,1,1-Trichloroethane	U	3.2	10.	ug/l		8260B	11/22/14	10
1,1,2-Trichloroethane	U	3.8	10.	ug/l		8260B	11/22/14	10
Trichloroethene	U	4.0	10.	ug/l		8260B	11/22/14	10
1,2,4-Trimethylbenzene	27.	3.7	10.	ug/l		8260B	11/22/14	10
1,3,5-Trimethylbenzene	U	3.9	10.	ug/l		8260B	11/22/14	10
Vinyl chloride	U	2.6	10.	ug/l		8260B	11/22/14	10
o-Xylene	12.	3.4	10.	ug/l		8260B	11/22/14	10
m&p-Xylene	160	7.2	20.	ug/l		8260B	11/22/14	10
Xylenes, Total	170	11.	30.	ug/l		8260B	11/22/14	10
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	11/22/14	1
Dibromofluoromethane	96.9			% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	102.			% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	7400	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	920	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								

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Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-43
Collected By : SU/HMI Team
Collection Date : 11/13/14 11:50

ESC Sample # : L733743-100
Site ID : REST
Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
o-Terphenyl	114.			% Rec.		8015	11/19/14	1

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2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-101

Sample ID : MW-50

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 17:10

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	200000	2600	50000	ug/l		300.0	11/20/14	50
Fluoride	830	9.9	100	ug/l		300.0	11/20/14	1
Sulfate	1600000	3900	250000	ug/l		300.0	11/20/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	2800000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	4.2	0.25	2.0	ug/l		6020	11/25/14	1
Barium	24.	0.36	5.0	ug/l		6020	11/25/14	1
Calcium	450000	460	10000	ug/l		6020	12/02/14	10
Chromium	0.60	0.54	1.0	ug/l	J	6020	11/25/14	1
Iron	3700	50.	100	ug/l		6020	11/25/14	1
Lead	1.0	0.24	2.0	ug/l	J	6020	11/25/14	1
Manganese	1500	0.25	5.0	ug/l		6020	11/25/14	1
Potassium	2300	37.	1000	ug/l		6020	11/25/14	1
Selenium	0.40	0.38	2.0	ug/l	J	6020	11/25/14	1
Sodium	160000	1100	10000	ug/l		6020	12/02/14	10
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/22/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/22/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/22/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
sec-Butylbenzene	1.1	0.36	1.0	ug/l		8260B	11/22/14	1
Carbon disulfide	0.31	0.28	1.0	ug/l	J	8260B	11/22/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/22/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/22/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/22/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/22/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/22/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/22/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/22/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1

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January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-101

Sample ID : MW-50

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 17:10

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/22/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
p-Isopropyltoluene	0.86	0.35	1.0	ug/l	J	8260B	11/22/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/22/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/22/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/22/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/22/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/22/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/22/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/22/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/22/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/22/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/22/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/22/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/22/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/22/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/22/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/22/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/22/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/22/14	1
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	11/22/14	1
Dibromofluoromethane	94.5			% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	102.			% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	360	110	500	ug/l	J	8015	11/20/14	5
C28-C40 Oil Range	U	59.	500	ug/l		8015	11/20/14	5
Surrogate Recovery								
o-Terphenyl	110.			% Rec.		8015	11/20/14	5

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January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-102

Sample ID : MW-52

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 08:25

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	150000	1000	20000	ug/l		300.0	11/20/14	20
Fluoride	1500	9.9	100	ug/l		300.0	11/20/14	1
Sulfate	990000	1500	100000	ug/l		300.0	11/20/14	20
Cyanide	U	1.8	5.0	ug/l		9012B	11/21/14	1
Nitrate-Nitrite	1900	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	2000000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	3.3	0.25	2.0	ug/l		6020	11/25/14	1
Barium	9.7	0.36	5.0	ug/l		6020	11/25/14	1
Calcium	190000	460	10000	ug/l		6020	12/02/14	10
Chromium	0.57	0.54	1.0	ug/l	J	6020	11/25/14	1
Iron	U	50.	100	ug/l		6020	11/25/14	1
Lead	0.76	0.24	2.0	ug/l	J	6020	11/25/14	1
Manganese	60.	0.25	5.0	ug/l		6020	11/25/14	1
Nickel	6.7	0.35	2.0	ug/l		6020	11/25/14	1
Potassium	300	37.	1000	ug/l	J	6020	11/25/14	1
Selenium	2.0	0.38	2.0	ug/l		6020	11/25/14	1
Sodium	320000	1100	10000	ug/l		6020	12/02/14	10
Vanadium	25.	0.18	5.0	ug/l		6020	11/25/14	1
Zinc	U	2.6	25.	ug/l		6020	11/25/14	1
Mercury	U	0.049	0.20	ug/l		7470A	11/18/14	1
TPH (GC/FID) Low Fraction	32.	31.	100	ug/l	J	8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	114.			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/22/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/22/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/22/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/22/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/22/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/22/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/22/14	1

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Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-52

Collected By : SU/HMI Team
Collection Date : 11/13/14 08:25

ESC Sample # : L733743-102

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloroform	U	0.32	5.0	ug/l		8260B	11/22/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/22/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/22/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/22/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/22/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/22/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/22/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/22/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/22/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/22/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/22/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/22/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/22/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/22/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/22/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/22/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/22/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/22/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/22/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/22/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/22/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/22/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/22/14	1
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	11/22/14	1
Dibromofluoromethane	95.5			% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	102.			% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	280	110	500	ug/l	J	8015	11/20/14	5
C28-C40 Oil Range	U	59.	500	ug/l		8015	11/20/14	5

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-52
Collected By : SU/HMI Team
Collection Date : 11/13/14 08:25

ESC Sample # : L733743-102
Site ID : REST
Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery o-Terphenyl	114.			% Rec.		8015	11/20/14	5

U = ND (Not Detected)
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
MDL = Minimum Detection Limit = LOD = TRRP SDL
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1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-57

Collected By : SU/HMI Team
Collection Date : 11/13/14 10:10

ESC Sample # : L733743-103

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	540000	2600	50000	ug/l		300.0	11/21/14	50
Fluoride	1800	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	1900000	3900	250000	ug/l		300.0	11/21/14	50
Nitrate-Nitrite	2700	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	4100000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	5.5	0.25	2.0	ug/l		6020	11/25/14	1
Barium	52.	0.36	5.0	ug/l		6020	11/25/14	1
Calcium	570000	460	10000	ug/l		6020	12/02/14	10
Chromium	1.5	0.54	1.0	ug/l		6020	11/25/14	1
Iron	1000	50.	100	ug/l		6020	11/25/14	1
Lead	1.9	0.24	2.0	ug/l	J	6020	11/25/14	1
Manganese	1300	0.25	5.0	ug/l		6020	11/25/14	1
Potassium	1200	37.	1000	ug/l		6020	11/25/14	1
Selenium	8.8	0.38	2.0	ug/l		6020	11/25/14	1
Sodium	440000	1100	10000	ug/l		6020	12/02/14	10
TPH (GC/FID) Low Fraction	47.	31.	100	ug/l	J	8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	114.			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/22/14	1
Benzene	6.0	0.33	1.0	ug/l		8260B	11/22/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/22/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/22/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/22/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/22/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/22/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/22/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/22/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/22/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/22/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-103

Sample ID : MW-57

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 10:10

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/22/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/22/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/22/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/22/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/22/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/22/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/22/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/22/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/22/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/22/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/22/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/22/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/22/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/22/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/22/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/22/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/22/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/22/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/22/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/22/14	1
Surrogate Recovery								
Toluene-d8	99.8			% Rec.		8260B	11/22/14	1
Dibromofluoromethane	95.4			% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	105.			% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	260	110	500	ug/l	J	8015	11/20/14	5
C28-C40 Oil Range	U	59.	500	ug/l		8015	11/20/14	5
Surrogate Recovery								
o-Terphenyl	116.			% Rec.		8015	11/20/14	5

U = ND (Not Detected)

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Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-104

Sample ID : MW-60

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 08:45

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	200000	2600	50000	ug/l		300.0	11/21/14	50
Fluoride	1100	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	1900000	3900	250000	ug/l		300.0	11/21/14	50
Cyanide	U	1.8	5.0	ug/l		9012B	11/21/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	3400000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	2.6	0.25	2.0	ug/l		6020	11/25/14	1
Barium	17.	0.36	5.0	ug/l		6020	11/25/14	1
Calcium	530000	460	10000	ug/l		6020	12/02/14	10
Chromium	0.65	0.54	1.0	ug/l	J	6020	11/25/14	1
Iron	65.	50.	100	ug/l	J	6020	11/25/14	1
Lead	0.46	0.24	2.0	ug/l	J	6020	11/25/14	1
Manganese	380	0.25	5.0	ug/l		6020	11/25/14	1
Nickel	1.6	0.35	2.0	ug/l	J	6020	11/25/14	1
Potassium	630	37.	1000	ug/l	J	6020	11/25/14	1
Selenium	14.	0.38	2.0	ug/l		6020	11/25/14	1
Sodium	240000	1100	10000	ug/l		6020	12/02/14	10
Vanadium	0.29	0.18	5.0	ug/l	J	6020	11/25/14	1
Mercury	U	0.049	0.20	ug/l		7470A	11/18/14	1
TPH (GC/FID) Low Fraction	540	160	500	ug/l		8015D/G	11/20/14	5
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	116.			% Rec.		8015D/G	11/20/14	5
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/22/14	1
Benzene	3.2	0.33	1.0	ug/l		8260B	11/22/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/22/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/22/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
sec-Butylbenzene	2.3	0.36	1.0	ug/l		8260B	11/22/14	1
Carbon disulfide	0.41	0.28	1.0	ug/l	J	8260B	11/22/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/22/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/22/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/22/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/22/14	1

U = ND (Not Detected)

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REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-60

Collected By : SU/HMI Team
Collection Date : 11/12/14 08:45

ESC Sample # : L733743-104

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloromethane	U	0.28	2.5	ug/l		8260B	11/22/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/22/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/22/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/22/14	1
Isopropylbenzene	13.	0.33	1.0	ug/l		8260B	11/22/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/22/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/22/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/22/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/22/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/22/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/22/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/22/14	1
n-Propylbenzene	0.92	0.35	1.0	ug/l	J	8260B	11/22/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/22/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/22/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/22/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/22/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/22/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/22/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/22/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/22/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/22/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/22/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/22/14	1
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	11/22/14	1
Dibromofluoromethane	95.1			% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	101.			% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	630	22.	100	ug/l		8015	11/18/14	1
C28-C40 Oil Range	21.	12.	100	ug/l	J	8015	11/18/14	1
Surrogate Recovery								

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-60
Collected By : SU/HMI Team
Collection Date : 11/12/14 08:45

ESC Sample # : L733743-104
Site ID : REST
Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
o-Terphenyl	114.			% Rec.		8015	11/18/14	1

U = ND (Not Detected)
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
MDL = Minimum Detection Limit = LOD = TRRP SDL
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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-105

Sample ID : MW-61

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 10:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	250000	1000	20000	ug/l		300.0	11/21/14	20
Fluoride	1500	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	930000	1500	100000	ug/l		300.0	11/21/14	20
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	2700000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	2.0	0.25	2.0	ug/l		6020	11/25/14	1
Barium	53.	0.36	5.0	ug/l		6020	11/25/14	1
Calcium	470000	460	10000	ug/l		6020	12/02/14	10
Chromium	0.81	0.54	1.0	ug/l	J	6020	11/25/14	1
Iron	U	50.	100	ug/l		6020	11/25/14	1
Lead	1.2	0.24	2.0	ug/l	J	6020	11/25/14	1
Manganese	4.4	0.25	5.0	ug/l	J	6020	11/25/14	1
Potassium	1100	37.	1000	ug/l		6020	11/25/14	1
Selenium	8.7	0.38	2.0	ug/l		6020	11/25/14	1
Sodium	290000	1100	10000	ug/l		6020	12/02/14	10
TPH (GC/FID) Low Fraction	11000	3100	10000	ug/l		8015D/G	11/20/14	100
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	115.			% Rec.		8015D/G	11/20/14	100
Volatile Organics								
Acetone	U	500	2500	ug/l		8260B	11/22/14	50
Benzene	1300	16.	50.	ug/l		8260B	11/22/14	50
Bromodichloromethane	U	19.	50.	ug/l		8260B	11/22/14	50
Bromoform	U	23.	50.	ug/l		8260B	11/22/14	50
Bromomethane	U	43.	250	ug/l		8260B	11/22/14	50
n-Butylbenzene	U	18.	50.	ug/l		8260B	11/22/14	50
sec-Butylbenzene	U	18.	50.	ug/l		8260B	11/22/14	50
Carbon disulfide	U	14.	50.	ug/l		8260B	11/22/14	50
Carbon tetrachloride	U	19.	50.	ug/l		8260B	11/22/14	50
Chlorobenzene	U	17.	50.	ug/l		8260B	11/22/14	50
Chlorodibromomethane	U	16.	50.	ug/l		8260B	11/22/14	50
Chloroethane	U	23.	250	ug/l		8260B	11/22/14	50
Chloroform	U	16.	250	ug/l		8260B	11/22/14	50
Chloromethane	U	14.	130	ug/l		8260B	11/22/14	50
1,2-Dibromoethane	U	19.	50.	ug/l		8260B	11/22/14	50
1,1-Dichloroethane	U	13.	50.	ug/l		8260B	11/22/14	50
1,2-Dichloroethane	U	18.	50.	ug/l		8260B	11/22/14	50
1,1-Dichloroethene	U	20.	50.	ug/l		8260B	11/22/14	50
cis-1,2-Dichloroethene	U	13.	50.	ug/l		8260B	11/22/14	50

U = ND (Not Detected)

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-105

Sample ID : MW-61

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 10:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	20.	50.	ug/l		8260B	11/22/14	50
1,2-Dichloropropane	U	15.	50.	ug/l		8260B	11/22/14	50
cis-1,3-Dichloropropene	U	21.	50.	ug/l		8260B	11/22/14	50
trans-1,3-Dichloropropene	U	21.	50.	ug/l		8260B	11/22/14	50
Ethylbenzene	160	19.	50.	ug/l		8260B	11/22/14	50
Isopropylbenzene	110	16.	50.	ug/l		8260B	11/22/14	50
p-Isopropyltoluene	U	18.	50.	ug/l		8260B	11/22/14	50
2-Butanone (MEK)	U	200	500	ug/l		8260B	11/22/14	50
2-Hexanone	U	190	500	ug/l		8260B	11/22/14	50
Methylene Chloride	U	50.	250	ug/l		8260B	11/22/14	50
4-Methyl-2-pentanone (MIBK)	U	110	500	ug/l		8260B	11/22/14	50
Methyl tert-butyl ether	U	18.	50.	ug/l		8260B	11/22/14	50
Naphthalene	140	18.	250	ug/l	J	8260B	11/22/14	50
n-Propylbenzene	160	17.	50.	ug/l		8260B	11/22/14	50
Styrene	U	15.	50.	ug/l		8260B	11/22/14	50
1,1,1,2-Tetrachloroethane	U	19.	50.	ug/l		8260B	11/22/14	50
1,1,2,2-Tetrachloroethane	U	6.5	50.	ug/l		8260B	11/22/14	50
Tetrachloroethene	U	19.	50.	ug/l		8260B	11/22/14	50
Toluene	U	39.	250	ug/l		8260B	11/22/14	50
1,1,1-Trichloroethane	U	16.	50.	ug/l		8260B	11/22/14	50
1,1,2-Trichloroethane	U	19.	50.	ug/l		8260B	11/22/14	50
Trichloroethene	U	20.	50.	ug/l		8260B	11/22/14	50
1,2,4-Trimethylbenzene	430	19.	50.	ug/l		8260B	11/22/14	50
1,3,5-Trimethylbenzene	100	19.	50.	ug/l		8260B	11/22/14	50
Vinyl chloride	U	13.	50.	ug/l		8260B	11/22/14	50
o-Xylene	U	17.	50.	ug/l		8260B	11/22/14	50
m&p-Xylene	1200	36.	100	ug/l		8260B	11/22/14	50
Xylenes, Total	1200	53.	150	ug/l		8260B	11/22/14	50
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	11/22/14	1
Dibromofluoromethane	95.1			% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	101.			% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	6400	110	500	ug/l		8015	11/20/14	5
C28-C40 Oil Range	840	59.	500	ug/l		8015	11/20/14	5
Surrogate Recovery								
o-Terphenyl	144.			% Rec.		8015	11/20/14	5

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-62
Collected By : SU/HMI Team
Collection Date : 11/13/14 14:45

ESC Sample # : L733743-106
Site ID : REST
Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	470000	1000	20000	ug/l		300.0	11/21/14	20
Fluoride	1600	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	5500	77.	5000	ug/l		300.0	11/21/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	2100000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	10.	0.25	2.0	ug/l		6020	11/25/14	1
Barium	9300	3.6	50.	ug/l		6020	12/02/14	10
Calcium	160000	460	10000	ug/l		6020	12/02/14	10
Chromium	2.1	0.54	1.0	ug/l		6020	11/25/14	1
Iron	260	50.	100	ug/l		6020	11/25/14	1
Lead	9.8	0.24	2.0	ug/l		6020	11/25/14	1
Manganese	100	0.25	5.0	ug/l		6020	11/25/14	1
Potassium	1800	37.	1000	ug/l		6020	11/25/14	1
Selenium	1.9	0.38	2.0	ug/l	J	6020	11/25/14	1
Sodium	480000	1100	10000	ug/l		6020	12/02/14	10
TPH (GC/FID) Low Fraction	42000	780	2500	ug/l		8015D/G	11/20/14	25
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	112.			% Rec.		8015D/G	11/20/14	25
Volatile Organics								
Acetone	U	500	2500	ug/l		8260B	11/19/14	50
Benzene	17000	160	500	ug/l		8260B	11/21/14	500
Bromodichloromethane	U	19.	50.	ug/l		8260B	11/19/14	50
Bromoform	U	23.	50.	ug/l		8260B	11/19/14	50
Bromomethane	U	43.	250	ug/l		8260B	11/19/14	50
n-Butylbenzene	U	18.	50.	ug/l		8260B	11/19/14	50
sec-Butylbenzene	U	18.	50.	ug/l		8260B	11/19/14	50
Carbon disulfide	U	14.	50.	ug/l		8260B	11/19/14	50
Carbon tetrachloride	U	19.	50.	ug/l		8260B	11/19/14	50
Chlorobenzene	U	17.	50.	ug/l		8260B	11/19/14	50
Chlorodibromomethane	U	16.	50.	ug/l		8260B	11/19/14	50
Chloroethane	U	23.	250	ug/l	J4	8260B	11/19/14	50
Chloroform	U	16.	250	ug/l		8260B	11/19/14	50
Chloromethane	U	14.	130	ug/l		8260B	11/19/14	50
1,2-Dibromoethane	U	19.	50.	ug/l		8260B	11/19/14	50
1,1-Dichloroethane	U	13.	50.	ug/l		8260B	11/19/14	50
1,2-Dichloroethane	U	18.	50.	ug/l		8260B	11/19/14	50
1,1-Dichloroethene	U	20.	50.	ug/l		8260B	11/19/14	50
cis-1,2-Dichloroethene	U	13.	50.	ug/l		8260B	11/19/14	50

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Mt. Juliet, TN 37122
(615) 758-5858
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Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-106

Sample ID : MW-62

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 14:45

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	20.	50.	ug/l		8260B	11/19/14	50
1,2-Dichloropropane	U	15.	50.	ug/l		8260B	11/19/14	50
cis-1,3-Dichloropropene	U	21.	50.	ug/l		8260B	11/19/14	50
trans-1,3-Dichloropropene	U	21.	50.	ug/l		8260B	11/19/14	50
Ethylbenzene	910	19.	50.	ug/l		8260B	11/19/14	50
Isopropylbenzene	140	16.	50.	ug/l		8260B	11/19/14	50
p-Isopropyltoluene	U	18.	50.	ug/l		8260B	11/19/14	50
2-Butanone (MEK)	U	200	500	ug/l		8260B	11/19/14	50
2-Hexanone	U	190	500	ug/l		8260B	11/19/14	50
Methylene Chloride	U	50.	250	ug/l		8260B	11/19/14	50
4-Methyl-2-pentanone (MIBK)	U	110	500	ug/l		8260B	11/19/14	50
Methyl tert-butyl ether	25.	18.	50.	ug/l	J	8260B	11/19/14	50
Naphthalene	420	50.	250	ug/l	J4	8260B	11/19/14	50
n-Propylbenzene	210	17.	50.	ug/l		8260B	11/19/14	50
Styrene	U	15.	50.	ug/l		8260B	11/19/14	50
1,1,1,2-Tetrachloroethane	U	19.	50.	ug/l		8260B	11/19/14	50
1,1,2,2-Tetrachloroethane	U	6.5	50.	ug/l		8260B	11/19/14	50
Tetrachloroethene	U	19.	50.	ug/l		8260B	11/19/14	50
Toluene	U	39.	250	ug/l		8260B	11/19/14	50
1,1,1-Trichloroethane	U	16.	50.	ug/l		8260B	11/19/14	50
1,1,2-Trichloroethane	U	19.	50.	ug/l		8260B	11/19/14	50
Trichloroethene	U	20.	50.	ug/l		8260B	11/19/14	50
1,2,4-Trimethylbenzene	U	19.	50.	ug/l		8260B	11/19/14	50
1,3,5-Trimethylbenzene	U	19.	50.	ug/l		8260B	11/19/14	50
Vinyl chloride	U	13.	50.	ug/l		8260B	11/19/14	50
o-Xylene	U	17.	50.	ug/l		8260B	11/19/14	50
m&p-Xylene	80.	36.	100	ug/l	J	8260B	11/19/14	50
Xylenes, Total	80.	53.	150	ug/l	J	8260B	11/19/14	50
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	11/19/14	50
Dibromofluoromethane	98.1			% Rec.		8260B	11/19/14	50
4-Bromofluorobenzene	113.			% Rec.		8260B	11/19/14	50
Diesel and Oil Ranges								
C10-C28 Diesel Range	29000	220	1000	ug/l		8015	11/20/14	10
C28-C40 Oil Range	4400	120	1000	ug/l		8015	11/20/14	10
Surrogate Recovery								
o-Terphenyl	75.6			% Rec.		8015	11/20/14	10

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Mt. Juliet, TN 37122
(615) 758-5858
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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-107

Sample ID : MW-66

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 14:25

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	150000	1000	20000	ug/l		300.0	11/21/14	20
Fluoride	1200	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	510	77.	5000	ug/l	J	300.0	11/21/14	1
Cyanide	U	1.8	5.0	ug/l		9012B	11/21/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	990000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	2.9	0.25	2.0	ug/l		6020	11/25/14	1
Barium	2200	0.36	5.0	ug/l		6020	11/25/14	1
Calcium	140000	460	10000	ug/l		6020	12/02/14	10
Chromium	0.76	0.54	1.0	ug/l	J	6020	11/25/14	1
Iron	1400	50.	100	ug/l		6020	11/25/14	1
Lead	2.6	0.24	2.0	ug/l		6020	11/25/14	1
Manganese	280	0.25	5.0	ug/l		6020	11/25/14	1
Nickel	6.8	0.35	2.0	ug/l		6020	11/25/14	1
Potassium	1000	37.	1000	ug/l		6020	11/25/14	1
Selenium	1.5	0.38	2.0	ug/l	J	6020	11/25/14	1
Sodium	160000	1100	10000	ug/l		6020	12/02/14	10
Vanadium	0.84	0.18	5.0	ug/l	J	6020	11/25/14	1
Mercury	U	0.049	0.20	ug/l		7470A	11/18/14	1
TPH (GC/FID) Low Fraction	23000	310	1000	ug/l		8015D/G	11/20/14	10
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	117.			% Rec.		8015D/G	11/20/14	10
Volatile Organics								
Acetone	U	100	500	ug/l		8260B	11/19/14	10
Benzene	6500	66.	200	ug/l		8260B	11/21/14	200
Bromodichloromethane	U	3.8	10.	ug/l		8260B	11/19/14	10
Bromoform	U	4.7	10.	ug/l		8260B	11/19/14	10
Bromomethane	U	8.7	50.	ug/l		8260B	11/19/14	10
n-Butylbenzene	10.	3.6	10.	ug/l	J	8260B	11/19/14	10
sec-Butylbenzene	12.	3.6	10.	ug/l		8260B	11/19/14	10
Carbon disulfide	U	2.8	10.	ug/l		8260B	11/19/14	10
Carbon tetrachloride	U	3.8	10.	ug/l		8260B	11/19/14	10
Chlorobenzene	U	3.5	10.	ug/l		8260B	11/19/14	10
Chlorodibromomethane	U	3.3	10.	ug/l		8260B	11/19/14	10
Chloroethane	U	4.5	50.	ug/l	J4	8260B	11/19/14	10
Chloroform	U	3.2	50.	ug/l		8260B	11/19/14	10

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-66
Collected By : SU/HMI Team
Collection Date : 11/12/14 14:25

ESC Sample # : L733743-107

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloromethane	U	2.8	25.	ug/l		8260B	11/19/14	10
1,2-Dibromoethane	U	3.8	10.	ug/l		8260B	11/19/14	10
1,1-Dichloroethane	U	2.6	10.	ug/l		8260B	11/19/14	10
1,2-Dichloroethane	U	3.6	10.	ug/l		8260B	11/19/14	10
1,1-Dichloroethene	U	4.0	10.	ug/l		8260B	11/19/14	10
cis-1,2-Dichloroethene	U	2.6	10.	ug/l		8260B	11/19/14	10
trans-1,2-Dichloroethene	U	4.0	10.	ug/l		8260B	11/19/14	10
1,2-Dichloropropane	U	3.1	10.	ug/l		8260B	11/19/14	10
cis-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/19/14	10
trans-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/19/14	10
Ethylbenzene	190	3.8	10.	ug/l		8260B	11/19/14	10
Isopropylbenzene	79.	3.3	10.	ug/l		8260B	11/19/14	10
p-Isopropyltoluene	U	3.5	10.	ug/l		8260B	11/19/14	10
2-Butanone (MEK)	U	39.	100	ug/l		8260B	11/19/14	10
2-Hexanone	U	38.	100	ug/l		8260B	11/19/14	10
Methylene Chloride	U	10.	50.	ug/l		8260B	11/19/14	10
4-Methyl-2-pentanone (MIBK)	U	21.	100	ug/l		8260B	11/19/14	10
Methyl tert-butyl ether	1900	73.	200	ug/l		8260B	11/21/14	200
Naphthalene	220	10.	50.	ug/l	J4	8260B	11/19/14	10
n-Propylbenzene	120	3.5	10.	ug/l		8260B	11/19/14	10
Styrene	U	3.1	10.	ug/l		8260B	11/19/14	10
1,1,1,2-Tetrachloroethane	U	3.8	10.	ug/l		8260B	11/19/14	10
1,1,2,2-Tetrachloroethane	U	1.3	10.	ug/l		8260B	11/19/14	10
Tetrachloroethene	U	3.7	10.	ug/l		8260B	11/19/14	10
Toluene	52.	7.8	50.	ug/l		8260B	11/19/14	10
1,1,1-Trichloroethane	U	3.2	10.	ug/l		8260B	11/19/14	10
1,1,2-Trichloroethane	U	3.8	10.	ug/l		8260B	11/19/14	10
Trichloroethene	U	4.0	10.	ug/l		8260B	11/19/14	10
1,2,4-Trimethylbenzene	12.	3.7	10.	ug/l		8260B	11/19/14	10
1,3,5-Trimethylbenzene	U	3.9	10.	ug/l		8260B	11/19/14	10
Vinyl chloride	U	2.6	10.	ug/l		8260B	11/19/14	10
o-Xylene	15.	3.4	10.	ug/l		8260B	11/19/14	10
m&p-Xylene	100	7.2	20.	ug/l		8260B	11/19/14	10
Xylenes, Total	120	11.	30.	ug/l		8260B	11/19/14	10
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/19/14	10
Dibromofluoromethane	93.7			% Rec.		8260B	11/19/14	10
4-Bromofluorobenzene	112.			% Rec.		8260B	11/19/14	10
Diesel and Oil Ranges								
C10-C28 Diesel Range	3300	22.	100	ug/l		8015	11/18/14	1
C28-C40 Oil Range	440	12.	100	ug/l		8015	11/18/14	1
Surrogate Recovery								

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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Fax (615) 758-5859
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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-66
Collected By : SU/HMI Team
Collection Date : 11/12/14 14:25

ESC Sample # : L733743-107
Site ID : REST
Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
o-Terphenyl	114.			% Rec.		8015	11/18/14	1

U = ND (Not Detected)
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-108

Sample ID : MW-90

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 14:15

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	160000	2600	50000	ug/l		300.0	11/21/14	50
Fluoride	9300	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	6200000	7700	500000	ug/l		300.0	11/24/14	100
Nitrate-Nitrite	4800	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	8800000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	11.	0.25	2.0	ug/l		6020	11/25/14	1
Barium	14.	0.36	5.0	ug/l		6020	11/25/14	1
Calcium	520000	460	10000	ug/l		6020	12/02/14	10
Chromium	0.67	0.54	1.0	ug/l	J	6020	11/25/14	1
Iron	410	50.	100	ug/l		6020	11/25/14	1
Lead	U	0.24	2.0	ug/l		6020	11/25/14	1
Manganese	52.	0.25	5.0	ug/l		6020	11/25/14	1
Potassium	3500	37.	1000	ug/l		6020	11/25/14	1
Selenium	21.	0.38	2.0	ug/l		6020	12/02/14	1
Sodium	500000	1100	10000	ug/l		6020	12/02/14	10
TPH (GC/FID) Low Fraction	210	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	114.			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	15.	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	2.7	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	0.37	0.28	1.0	ug/l	J	8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l	J4	8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-108

Sample ID : MW-90

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 14:15

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
Ethylbenzene	0.39	0.38	1.0	ug/l	J	8260B	11/19/14	1
Isopropylbenzene	12.	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	4.9	1.0	5.0	ug/l	JJ4	8260B	11/19/14	1
n-Propylbenzene	3.8	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	0.37	0.34	1.0	ug/l	J	8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	98.4			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	111.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	2300	110	500	ug/l		8015	11/20/14	5
C28-C40 Oil Range	1200	59.	500	ug/l		8015	11/20/14	5
Surrogate Recovery								
o-Terphenyl	119.			% Rec.		8015	11/20/14	5

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Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-93

Collected By : SU/HMI Team
Collection Date : 11/13/14 13:55

ESC Sample # : L733743-109

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	200000	2600	50000	ug/l		300.0	11/21/14	50
Fluoride	3100	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	1700000	3900	250000	ug/l		300.0	11/21/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	3100000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	3.0	0.25	2.0	ug/l		6020	11/25/14	1
Barium	52.	0.36	5.0	ug/l		6020	11/25/14	1
Calcium	640000	460	10000	ug/l		6020	12/02/14	10
Chromium	6.5	0.54	1.0	ug/l		6020	11/25/14	1
Iron	3200	50.	100	ug/l		6020	11/25/14	1
Lead	5.4	0.24	2.0	ug/l		6020	11/25/14	1
Manganese	1300	0.25	5.0	ug/l		6020	11/25/14	1
Potassium	4700	37.	1000	ug/l		6020	11/25/14	1
Selenium	13.	0.38	2.0	ug/l		6020	11/25/14	1
Sodium	130000	1100	10000	ug/l		6020	12/02/14	10
TPH (GC/FID) Low Fraction	6500	310	1000	ug/l		8015D/G	11/20/14	10
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	116.			% Rec.		8015D/G	11/20/14	10
Volatile Organics								
Acetone	U	500	2500	ug/l		8260B	11/19/14	50
Benzene	1300	16.	50.	ug/l		8260B	11/19/14	50
Bromodichloromethane	U	19.	50.	ug/l		8260B	11/19/14	50
Bromoform	U	23.	50.	ug/l		8260B	11/19/14	50
Bromomethane	U	43.	250	ug/l		8260B	11/19/14	50
n-Butylbenzene	U	18.	50.	ug/l		8260B	11/19/14	50
sec-Butylbenzene	U	18.	50.	ug/l		8260B	11/19/14	50
Carbon disulfide	14.	14.	50.	ug/l	J	8260B	11/19/14	50
Carbon tetrachloride	U	19.	50.	ug/l		8260B	11/19/14	50
Chlorobenzene	U	17.	50.	ug/l		8260B	11/19/14	50
Chlorodibromomethane	U	16.	50.	ug/l		8260B	11/19/14	50
Chloroethane	U	23.	250	ug/l	J4	8260B	11/19/14	50
Chloroform	U	16.	250	ug/l		8260B	11/19/14	50
Chloromethane	U	14.	130	ug/l		8260B	11/19/14	50
1,2-Dibromoethane	U	19.	50.	ug/l		8260B	11/19/14	50
1,1-Dichloroethane	U	13.	50.	ug/l		8260B	11/19/14	50
1,2-Dichloroethane	U	18.	50.	ug/l		8260B	11/19/14	50
1,1-Dichloroethene	U	20.	50.	ug/l		8260B	11/19/14	50
cis-1,2-Dichloroethene	U	13.	50.	ug/l		8260B	11/19/14	50

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-109

Sample ID : MW-93

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 13:55

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	20.	50.	ug/l		8260B	11/19/14	50
1,2-Dichloropropane	U	15.	50.	ug/l		8260B	11/19/14	50
cis-1,3-Dichloropropene	U	21.	50.	ug/l		8260B	11/19/14	50
trans-1,3-Dichloropropene	U	21.	50.	ug/l		8260B	11/19/14	50
Ethylbenzene	39.	19.	50.	ug/l	J	8260B	11/19/14	50
Isopropylbenzene	50.	16.	50.	ug/l	J	8260B	11/19/14	50
p-Isopropyltoluene	U	18.	50.	ug/l		8260B	11/19/14	50
2-Butanone (MEK)	U	200	500	ug/l		8260B	11/19/14	50
2-Hexanone	U	190	500	ug/l		8260B	11/19/14	50
Methylene Chloride	U	50.	250	ug/l		8260B	11/19/14	50
4-Methyl-2-pentanone (MIBK)	U	110	500	ug/l		8260B	11/19/14	50
Methyl tert-butyl ether	U	18.	50.	ug/l		8260B	11/19/14	50
Naphthalene	170	50.	250	ug/l	JJ4	8260B	11/19/14	50
n-Propylbenzene	74.	17.	50.	ug/l		8260B	11/19/14	50
Styrene	U	15.	50.	ug/l		8260B	11/19/14	50
1,1,1,2-Tetrachloroethane	U	19.	50.	ug/l		8260B	11/19/14	50
1,1,2,2-Tetrachloroethane	U	6.5	50.	ug/l		8260B	11/19/14	50
Tetrachloroethene	U	19.	50.	ug/l		8260B	11/19/14	50
Toluene	U	39.	250	ug/l		8260B	11/19/14	50
1,1,1-Trichloroethane	U	16.	50.	ug/l		8260B	11/19/14	50
1,1,2-Trichloroethane	U	19.	50.	ug/l		8260B	11/19/14	50
Trichloroethene	U	20.	50.	ug/l		8260B	11/19/14	50
1,2,4-Trimethylbenzene	240	19.	50.	ug/l		8260B	11/19/14	50
1,3,5-Trimethylbenzene	46.	19.	50.	ug/l	J	8260B	11/19/14	50
Vinyl chloride	U	13.	50.	ug/l		8260B	11/19/14	50
o-Xylene	U	17.	50.	ug/l		8260B	11/19/14	50
m&p-Xylene	450	36.	100	ug/l		8260B	11/19/14	50
Xylenes, Total	450	53.	150	ug/l		8260B	11/19/14	50
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/19/14	50
Dibromofluoromethane	95.9			% Rec.		8260B	11/19/14	50
4-Bromofluorobenzene	110.			% Rec.		8260B	11/19/14	50
Diesel and Oil Ranges								
C10-C28 Diesel Range	11000	110	500	ug/l		8015	11/19/14	5
C28-C40 Oil Range	2200	12.	100	ug/l		8015	11/18/14	1
Surrogate Recovery								
o-Terphenyl	83.9			% Rec.		8015	11/18/14	1

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2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-96
Collected By : SU/HMI Team
Collection Date : 11/13/14 15:20

ESC Sample # : L733743-110

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	220000	2600	50000	ug/l		300.0	11/21/14	50
Fluoride	1800	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	1200000	3900	250000	ug/l		300.0	11/21/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	3000000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	4.9	0.25	2.0	ug/l		6020	11/25/14	1
Barium	73.	0.36	5.0	ug/l		6020	11/25/14	1
Calcium	390000	460	10000	ug/l		6020	12/02/14	10
Chromium	2.1	0.54	1.0	ug/l		6020	11/25/14	1
Iron	370	50.	100	ug/l		6020	11/25/14	1
Lead	0.89	0.24	2.0	ug/l	J	6020	11/25/14	1
Manganese	110	0.25	5.0	ug/l		6020	11/25/14	1
Potassium	1900	37.	1000	ug/l		6020	11/25/14	1
Selenium	1.9	0.38	2.0	ug/l	J	6020	11/25/14	1
Sodium	310000	1100	10000	ug/l		6020	12/02/14	10
TPH (GC/FID) Low Fraction	26000	1600	5000	ug/l		8015D/G	11/20/14	50
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	115.			% Rec.		8015D/G	11/20/14	50
Volatile Organics								
Acetone	U	250	1300	ug/l		8260B	11/21/14	25
Benzene	U	8.3	25.	ug/l		8260B	11/21/14	25
Bromodichloromethane	U	9.5	25.	ug/l		8260B	11/21/14	25
Bromoform	U	12.	25.	ug/l		8260B	11/21/14	25
Bromomethane	U	22.	130	ug/l	J3	8260B	11/21/14	25
n-Butylbenzene	U	9.0	25.	ug/l		8260B	11/21/14	25
sec-Butylbenzene	U	9.1	25.	ug/l		8260B	11/21/14	25
Carbon disulfide	U	6.9	25.	ug/l		8260B	11/21/14	25
Carbon tetrachloride	U	9.5	25.	ug/l		8260B	11/21/14	25
Chlorobenzene	U	8.7	25.	ug/l		8260B	11/21/14	25
Chlorodibromomethane	U	8.2	25.	ug/l		8260B	11/21/14	25
Chloroethane	U	11.	130	ug/l		8260B	11/21/14	25
Chloroform	U	8.1	130	ug/l		8260B	11/21/14	25
Chloromethane	U	6.9	63.	ug/l		8260B	11/21/14	25
1,2-Dibromoethane	U	9.5	25.	ug/l		8260B	11/21/14	25
1,1-Dichloroethane	U	6.5	25.	ug/l		8260B	11/21/14	25
1,2-Dichloroethane	U	9.0	25.	ug/l		8260B	11/21/14	25
1,1-Dichloroethene	U	10.	25.	ug/l		8260B	11/21/14	25
cis-1,2-Dichloroethene	U	6.5	25.	ug/l		8260B	11/21/14	25

U = ND (Not Detected)

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12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-110

Sample ID : MW-96

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 15:20

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	9.9	25.	ug/l		8260B	11/21/14	25
1,2-Dichloropropane	U	7.6	25.	ug/l		8260B	11/21/14	25
cis-1,3-Dichloropropene	U	10.	25.	ug/l		8260B	11/21/14	25
trans-1,3-Dichloropropene	U	10.	25.	ug/l		8260B	11/21/14	25
Ethylbenzene	U	9.6	25.	ug/l		8260B	11/21/14	25
Isopropylbenzene	55.	8.2	25.	ug/l		8260B	11/21/14	25
p-Isopropyltoluene	U	8.8	25.	ug/l		8260B	11/21/14	25
2-Butanone (MEK)	U	98.	250	ug/l		8260B	11/21/14	25
2-Hexanone	U	96.	250	ug/l		8260B	11/21/14	25
Methylene Chloride	U	25.	130	ug/l		8260B	11/21/14	25
4-Methyl-2-pentanone (MIBK)	U	54.	250	ug/l		8260B	11/21/14	25
Methyl tert-butyl ether	28000	9.2	25.	ug/l	E	8260B	11/21/14	25
Naphthalene	U	25.	130	ug/l		8260B	11/21/14	25
n-Propylbenzene	44.	8.7	25.	ug/l		8260B	11/21/14	25
Styrene	U	7.7	25.	ug/l		8260B	11/21/14	25
1,1,1,2-Tetrachloroethane	U	9.6	25.	ug/l		8260B	11/21/14	25
1,1,2,2-Tetrachloroethane	U	3.2	25.	ug/l		8260B	11/21/14	25
Tetrachloroethene	U	9.3	25.	ug/l		8260B	11/21/14	25
Toluene	U	20.	130	ug/l		8260B	11/21/14	25
1,1,1-Trichloroethane	U	8.0	25.	ug/l		8260B	11/21/14	25
1,1,2-Trichloroethane	U	9.6	25.	ug/l		8260B	11/21/14	25
Trichloroethene	U	10.	25.	ug/l		8260B	11/21/14	25
1,2,4-Trimethylbenzene	U	9.3	25.	ug/l		8260B	11/21/14	25
1,3,5-Trimethylbenzene	U	9.7	25.	ug/l		8260B	11/21/14	25
Vinyl chloride	U	6.5	25.	ug/l		8260B	11/21/14	25
o-Xylene	U	8.5	25.	ug/l		8260B	11/21/14	25
m&p-Xylene	U	18.	50.	ug/l		8260B	11/21/14	25
Xylenes, Total	U	26.	75.	ug/l		8260B	11/21/14	25
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	96.1			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	109.			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	10000	110	500	ug/l		8015	11/19/14	5
C28-C40 Oil Range	1600	12.	100	ug/l		8015	11/18/14	1
Surrogate Recovery								
o-Terphenyl	117.			% Rec.		8015	11/18/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-98

Collected By : SU/HMI Team
Collection Date : 11/12/14 15:05

ESC Sample # : L733743-111

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	32000	52.	1000	ug/l		300.0	11/21/14	1
Fluoride	1900	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	1600000	3900	250000	ug/l		300.0	11/21/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	2800000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	0.68	0.25	2.0	ug/l	J	6020	11/25/14	1
Barium	17.	0.36	5.0	ug/l		6020	11/25/14	1
Calcium	460000	460	10000	ug/l		6020	12/02/14	10
Chromium	1.1	0.54	1.0	ug/l		6020	11/25/14	1
Iron	64.	50.	100	ug/l	J	6020	11/25/14	1
Lead	7.9	0.24	2.0	ug/l		6020	11/25/14	1
Manganese	27.	0.25	5.0	ug/l		6020	11/25/14	1
Potassium	200	37.	1000	ug/l	J	6020	11/25/14	1
Selenium	20.	0.38	2.0	ug/l		6020	12/02/14	1
Sodium	81000	1100	10000	ug/l		6020	12/02/14	10
TPH (GC/FID) Low Fraction	26000	3100	10000	ug/l		8015D/G	11/20/14	100
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	115.			% Rec.		8015D/G	11/20/14	100
Volatile Organics								
Acetone	U	2500	13000	ug/l		8260B	11/19/14	250
Benzene	4800	83.	250	ug/l		8260B	11/19/14	250
Bromodichloromethane	U	95.	250	ug/l		8260B	11/19/14	250
Bromoform	U	120	250	ug/l		8260B	11/19/14	250
Bromomethane	U	220	1300	ug/l		8260B	11/19/14	250
n-Butylbenzene	U	90.	250	ug/l		8260B	11/19/14	250
sec-Butylbenzene	U	91.	250	ug/l		8260B	11/19/14	250
Carbon disulfide	U	69.	250	ug/l		8260B	11/19/14	250
Carbon tetrachloride	U	95.	250	ug/l		8260B	11/19/14	250
Chlorobenzene	U	87.	250	ug/l		8260B	11/19/14	250
Chlorodibromomethane	U	82.	250	ug/l		8260B	11/19/14	250
Chloroethane	U	110	1300	ug/l	J4	8260B	11/19/14	250
Chloroform	U	81.	1300	ug/l		8260B	11/19/14	250
Chloromethane	U	69.	630	ug/l		8260B	11/19/14	250
1,2-Dibromoethane	U	95.	250	ug/l		8260B	11/19/14	250
1,1-Dichloroethane	U	65.	250	ug/l		8260B	11/19/14	250
1,2-Dichloroethane	U	90.	250	ug/l		8260B	11/19/14	250
1,1-Dichloroethene	U	100	250	ug/l		8260B	11/19/14	250
cis-1,2-Dichloroethene	U	65.	250	ug/l		8260B	11/19/14	250

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January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-111

Sample ID : MW-98

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 15:05

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	99.	250	ug/l		8260B	11/19/14	250
1,2-Dichloropropane	U	76.	250	ug/l		8260B	11/19/14	250
cis-1,3-Dichloropropene	U	100	250	ug/l		8260B	11/19/14	250
trans-1,3-Dichloropropene	U	100	250	ug/l		8260B	11/19/14	250
Ethylbenzene	630	96.	250	ug/l		8260B	11/19/14	250
Isopropylbenzene	U	82.	250	ug/l		8260B	11/19/14	250
p-Isopropyltoluene	U	88.	250	ug/l		8260B	11/19/14	250
2-Butanone (MEK)	U	980	2500	ug/l		8260B	11/19/14	250
2-Hexanone	U	960	2500	ug/l		8260B	11/19/14	250
Methylene Chloride	U	250	1300	ug/l		8260B	11/19/14	250
4-Methyl-2-pentanone (MIBK)	U	540	2500	ug/l		8260B	11/19/14	250
Methyl tert-butyl ether	U	92.	250	ug/l		8260B	11/19/14	250
Naphthalene	450	250	1300	ug/l	JJ4	8260B	11/19/14	250
n-Propylbenzene	97.	87.	250	ug/l	J	8260B	11/19/14	250
Styrene	U	77.	250	ug/l		8260B	11/19/14	250
1,1,1,2-Tetrachloroethane	U	96.	250	ug/l		8260B	11/19/14	250
1,1,2,2-Tetrachloroethane	U	32.	250	ug/l		8260B	11/19/14	250
Tetrachloroethene	U	93.	250	ug/l		8260B	11/19/14	250
Toluene	280	200	1300	ug/l	J	8260B	11/19/14	250
1,1,1-Trichloroethane	U	80.	250	ug/l		8260B	11/19/14	250
1,1,2-Trichloroethane	U	96.	250	ug/l		8260B	11/19/14	250
Trichloroethene	U	100	250	ug/l		8260B	11/19/14	250
1,2,4-Trimethylbenzene	340	93.	250	ug/l		8260B	11/19/14	250
1,3,5-Trimethylbenzene	U	97.	250	ug/l		8260B	11/19/14	250
Vinyl chloride	U	65.	250	ug/l		8260B	11/19/14	250
o-Xylene	U	85.	250	ug/l		8260B	11/19/14	250
m&p-Xylene	1600	180	500	ug/l		8260B	11/19/14	250
Xylenes, Total	1600	260	750	ug/l		8260B	11/19/14	250
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/19/14	250
Dibromofluoromethane	97.8			% Rec.		8260B	11/19/14	250
4-Bromofluorobenzene	111.			% Rec.		8260B	11/19/14	250
Diesel and Oil Ranges								
C10-C28 Diesel Range	5400	22.	100	ug/l		8015	11/18/14	1
C28-C40 Oil Range	550	12.	100	ug/l		8015	11/18/14	1
Surrogate Recovery								
o-Terphenyl	108.			% Rec.		8015	11/18/14	1

U = ND (Not Detected)

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12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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Est. 1970

REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-112

Sample ID : MW-101

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 08:05

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	230000	1000	20000	ug/l		300.0	11/21/14	20
Fluoride	1000	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	340000	1500	100000	ug/l		300.0	11/21/14	20
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1600000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	49.	0.25	2.0	ug/l		6020	11/25/14	1
Barium	89.	0.36	5.0	ug/l		6020	11/25/14	1
Calcium	280000	460	10000	ug/l		6020	12/02/14	10
Chromium	0.61	0.54	1.0	ug/l	J	6020	11/25/14	1
Iron	1800	50.	100	ug/l		6020	11/25/14	1
Lead	0.65	0.24	2.0	ug/l	J	6020	11/25/14	1
Manganese	980	0.25	5.0	ug/l		6020	11/25/14	1
Potassium	810	37.	1000	ug/l	J	6020	11/25/14	1
Selenium	1.2	0.38	2.0	ug/l	J	6020	11/25/14	1
Sodium	150000	1100	10000	ug/l		6020	12/02/14	10
TPH (GC/FID) Low Fraction	1400	310	1000	ug/l		8015D/G	11/20/14	10
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	117.			% Rec.		8015D/G	11/20/14	10
Volatile Organics								
Acetone	U	100	500	ug/l		8260B	11/19/14	10
Benzene	220	3.3	10.	ug/l		8260B	11/19/14	10
Bromodichloromethane	U	3.8	10.	ug/l		8260B	11/19/14	10
Bromoform	U	4.7	10.	ug/l		8260B	11/19/14	10
Bromomethane	U	8.7	50.	ug/l		8260B	11/19/14	10
n-Butylbenzene	U	3.6	10.	ug/l		8260B	11/19/14	10
sec-Butylbenzene	U	3.6	10.	ug/l		8260B	11/19/14	10
Carbon disulfide	U	2.8	10.	ug/l		8260B	11/19/14	10
Carbon tetrachloride	U	3.8	10.	ug/l		8260B	11/19/14	10
Chlorobenzene	U	3.5	10.	ug/l		8260B	11/19/14	10
Chlorodibromomethane	U	3.3	10.	ug/l		8260B	11/19/14	10
Chloroethane	U	4.5	50.	ug/l	J4	8260B	11/19/14	10
Chloroform	U	3.2	50.	ug/l		8260B	11/19/14	10
Chloromethane	U	2.8	25.	ug/l		8260B	11/19/14	10
1,2-Dibromoethane	U	3.8	10.	ug/l		8260B	11/19/14	10
1,1-Dichloroethane	U	2.6	10.	ug/l		8260B	11/19/14	10
1,2-Dichloroethane	U	3.6	10.	ug/l		8260B	11/19/14	10
1,1-Dichloroethene	U	4.0	10.	ug/l		8260B	11/19/14	10
cis-1,2-Dichloroethene	U	2.6	10.	ug/l		8260B	11/19/14	10

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-112

Sample ID : MW-101

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 08:05

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	4.0	10.	ug/l		8260B	11/19/14	10
1,2-Dichloropropane	U	3.1	10.	ug/l		8260B	11/19/14	10
cis-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/19/14	10
trans-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/19/14	10
Ethylbenzene	5.0	3.8	10.	ug/l	J	8260B	11/19/14	10
Isopropylbenzene	7.8	3.3	10.	ug/l	J	8260B	11/19/14	10
p-Isopropyltoluene	U	3.5	10.	ug/l		8260B	11/19/14	10
2-Butanone (MEK)	U	39.	100	ug/l		8260B	11/19/14	10
2-Hexanone	U	38.	100	ug/l		8260B	11/19/14	10
Methylene Chloride	U	10.	50.	ug/l		8260B	11/19/14	10
4-Methyl-2-pentanone (MIBK)	U	21.	100	ug/l		8260B	11/19/14	10
Methyl tert-butyl ether	120	3.7	10.	ug/l		8260B	11/19/14	10
Naphthalene	10.	10.	50.	ug/l	JJ4	8260B	11/19/14	10
n-Propylbenzene	5.0	3.5	10.	ug/l	J	8260B	11/19/14	10
Styrene	U	3.1	10.	ug/l		8260B	11/19/14	10
1,1,1,2-Tetrachloroethane	U	3.8	10.	ug/l		8260B	11/19/14	10
1,1,2,2-Tetrachloroethane	U	1.3	10.	ug/l		8260B	11/19/14	10
Tetrachloroethene	U	3.7	10.	ug/l		8260B	11/19/14	10
Toluene	U	7.8	50.	ug/l		8260B	11/19/14	10
1,1,1-Trichloroethane	U	3.2	10.	ug/l		8260B	11/19/14	10
1,1,2-Trichloroethane	U	3.8	10.	ug/l		8260B	11/19/14	10
Trichloroethene	U	4.0	10.	ug/l		8260B	11/19/14	10
1,2,4-Trimethylbenzene	U	3.7	10.	ug/l		8260B	11/19/14	10
1,3,5-Trimethylbenzene	U	3.9	10.	ug/l		8260B	11/19/14	10
Vinyl chloride	U	2.6	10.	ug/l		8260B	11/19/14	10
o-Xylene	U	3.4	10.	ug/l		8260B	11/19/14	10
m&p-Xylene	U	7.2	20.	ug/l		8260B	11/19/14	10
Xylenes, Total	U	11.	30.	ug/l		8260B	11/19/14	10
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	11/19/14	10
Dibromofluoromethane	97.7			% Rec.		8260B	11/19/14	10
4-Bromofluorobenzene	112.			% Rec.		8260B	11/19/14	10
Diesel and Oil Ranges								
C10-C28 Diesel Range	5300	22.	100	ug/l		8015	11/18/14	1
C28-C40 Oil Range	820	12.	100	ug/l		8015	11/18/14	1
Surrogate Recovery								
o-Terphenyl	118.			% Rec.		8015	11/18/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Mt. Juliet, TN 37122
(615) 758-5858
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Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-113

Sample ID : MW-104

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 14:05

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	54000	52.	1000	ug/l		300.0	11/21/14	1
Fluoride	2100	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	710000	770	50000	ug/l		300.0	11/21/14	10
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1300000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	1.8	0.25	2.0	ug/l	J	6020	11/25/14	1
Barium	30.	0.36	5.0	ug/l		6020	11/25/14	1
Calcium	230000	460	10000	ug/l		6020	12/02/14	10
Chromium	U	0.54	1.0	ug/l		6020	11/25/14	1
Iron	U	50.	100	ug/l		6020	11/25/14	1
Lead	U	0.24	2.0	ug/l		6020	11/25/14	1
Manganese	31.	0.25	5.0	ug/l		6020	11/25/14	1
Potassium	6000	37.	1000	ug/l		6020	11/25/14	1
Selenium	U	0.38	2.0	ug/l		6020	11/25/14	1
Sodium	69000	1100	10000	ug/l		6020	12/02/14	10
TPH (GC/FID) Low Fraction	1300	780	2500	ug/l	J	8015D/G	11/20/14	25
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	99.3			% Rec.		8015D/G	11/20/14	25
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	94.	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	0.50	0.36	1.0	ug/l	J	8260B	11/19/14	1
sec-Butylbenzene	33.	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l	J4	8260B	11/19/14	1
Chloroform	14.	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-113

Sample ID : MW-104

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 14:05

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
Ethylbenzene	2.1	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	37.	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	0.49	0.37	1.0	ug/l	J	8260B	11/19/14	1
Naphthalene	1.8	1.0	5.0	ug/l	JJ4	8260B	11/19/14	1
n-Propylbenzene	7.4	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	98.7			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	111.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	700	22.	100	ug/l		8015	11/18/14	1
C28-C40 Oil Range	180	12.	100	ug/l		8015	11/18/14	1
Surrogate Recovery								
o-Terphenyl	116.			% Rec.		8015	11/18/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-107
Collected By : SU/HMI Team
Collection Date : 11/12/14 09:45

ESC Sample # : L733743-114

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	300000	1000	20000	ug/l		300.0	11/21/14	20
Fluoride	1700	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	160000	1500	100000	ug/l		300.0	11/21/14	20
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1200000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	15.	0.25	2.0	ug/l		6020	11/25/14	1
Barium	520	0.36	5.0	ug/l		6020	11/25/14	1
Calcium	230000	460	10000	ug/l		6020	12/02/14	10
Chromium	0.97	0.54	1.0	ug/l	J	6020	11/25/14	1
Iron	3800	50.	100	ug/l		6020	11/25/14	1
Lead	0.49	0.24	2.0	ug/l	J	6020	11/25/14	1
Manganese	390	0.25	5.0	ug/l		6020	11/25/14	1
Potassium	730	37.	1000	ug/l	J	6020	11/25/14	1
Selenium	U	0.38	2.0	ug/l		6020	11/25/14	1
Sodium	80000	110	1000	ug/l		6020	11/25/14	1
Sodium	83000	1100	10000	ug/l		6020	11/25/14	1
TPH (GC/FID) Low Fraction	17000	780	2500	ug/l		8015D/G	11/20/14	25
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	101.			% Rec.		8015D/G	11/20/14	25
Volatile Organics								
Acetone	U	100	500	ug/l		8260B	11/19/14	10
Benzene	8200	33.	100	ug/l		8260B	11/20/14	100
Bromodichloromethane	U	3.8	10.	ug/l		8260B	11/19/14	10
Bromoform	U	4.7	10.	ug/l		8260B	11/19/14	10
Bromomethane	U	8.7	50.	ug/l		8260B	11/19/14	10
n-Butylbenzene	U	3.6	10.	ug/l		8260B	11/19/14	10
sec-Butylbenzene	5.7	3.6	10.	ug/l	J	8260B	11/19/14	10
Carbon disulfide	U	2.8	10.	ug/l		8260B	11/19/14	10
Carbon tetrachloride	U	3.8	10.	ug/l		8260B	11/19/14	10
Chlorobenzene	U	3.5	10.	ug/l		8260B	11/19/14	10
Chlorodibromomethane	U	3.3	10.	ug/l		8260B	11/19/14	10
Chloroethane	U	4.5	50.	ug/l	J4	8260B	11/19/14	10
Chloroform	U	3.2	50.	ug/l		8260B	11/19/14	10
Chloromethane	U	2.8	25.	ug/l		8260B	11/19/14	10
1,2-Dibromoethane	U	3.8	10.	ug/l		8260B	11/19/14	10
1,1-Dichloroethane	U	2.6	10.	ug/l		8260B	11/19/14	10
1,2-Dichloroethane	U	3.6	10.	ug/l		8260B	11/19/14	10
1,1-Dichloroethene	U	4.0	10.	ug/l		8260B	11/19/14	10

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-107

Collected By : SU/HMI Team
Collection Date : 11/12/14 09:45

ESC Sample # : L733743-114

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
cis-1,2-Dichloroethene	U	2.6	10.	ug/l		8260B	11/19/14	10
trans-1,2-Dichloroethene	U	4.0	10.	ug/l		8260B	11/19/14	10
1,2-Dichloropropane	U	3.1	10.	ug/l		8260B	11/19/14	10
cis-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/19/14	10
trans-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/19/14	10
Ethylbenzene	300	3.8	10.	ug/l		8260B	11/19/14	10
Isopropylbenzene	42.	3.3	10.	ug/l		8260B	11/19/14	10
p-Isopropyltoluene	U	3.5	10.	ug/l		8260B	11/19/14	10
2-Butanone (MEK)	U	39.	100	ug/l		8260B	11/19/14	10
2-Hexanone	U	38.	100	ug/l		8260B	11/19/14	10
Methylene Chloride	U	10.	50.	ug/l		8260B	11/19/14	10
4-Methyl-2-pentanone (MIBK)	U	21.	100	ug/l		8260B	11/19/14	10
Methyl tert-butyl ether	2300	3.7	10.	ug/l	E	8260B	11/19/14	10
Naphthalene	150	10.	50.	ug/l	J4	8260B	11/19/14	10
n-Propylbenzene	57.	3.5	10.	ug/l		8260B	11/19/14	10
Styrene	U	3.1	10.	ug/l		8260B	11/19/14	10
1,1,1,2-Tetrachloroethane	U	3.8	10.	ug/l		8260B	11/19/14	10
1,1,2,2-Tetrachloroethane	U	1.3	10.	ug/l		8260B	11/19/14	10
Tetrachloroethene	U	3.7	10.	ug/l		8260B	11/19/14	10
Toluene	20.	7.8	50.	ug/l	J	8260B	11/19/14	10
1,1,1-Trichloroethane	U	3.2	10.	ug/l		8260B	11/19/14	10
1,1,2-Trichloroethane	U	3.8	10.	ug/l		8260B	11/19/14	10
Trichloroethene	U	4.0	10.	ug/l		8260B	11/19/14	10
1,2,4-Trimethylbenzene	31.	3.7	10.	ug/l		8260B	11/19/14	10
1,3,5-Trimethylbenzene	5.2	3.9	10.	ug/l	J	8260B	11/19/14	10
Vinyl chloride	U	2.6	10.	ug/l		8260B	11/19/14	10
o-Xylene	3.5	3.4	10.	ug/l	J	8260B	11/19/14	10
m&p-Xylene	120	7.2	20.	ug/l		8260B	11/19/14	10
Xylenes, Total	120	11.	30.	ug/l		8260B	11/19/14	10
Surrogate Recovery								
Toluene-d8	106.			% Rec.		8260B	11/19/14	10
Dibromofluoromethane	93.3			% Rec.		8260B	11/19/14	10
4-Bromofluorobenzene	111.			% Rec.		8260B	11/19/14	10
Diesel and Oil Ranges								
C10-C28 Diesel Range	4900	22.	100	ug/l		8015	11/18/14	1
C28-C40 Oil Range	620	12.	100	ug/l		8015	11/18/14	1
Surrogate Recovery								
o-Terphenyl	116.			% Rec.		8015	11/18/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Mt. Juliet, TN 37122
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1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-109

Collected By : SU/HMI Team
Collection Date : 11/13/14 12:20

ESC Sample # : L733743-115

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	270000	1000	20000	ug/l		300.0	11/21/14	20
Fluoride	2400	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	920000	1500	100000	ug/l		300.0	11/21/14	20
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	2500000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	7.7	0.25	2.0	ug/l		6020	11/25/14	1
Barium	94.	0.36	5.0	ug/l		6020	11/25/14	1
Calcium	280000	460	10000	ug/l		6020	12/02/14	10
Chromium	0.76	0.54	1.0	ug/l	J	6020	11/25/14	1
Iron	460	50.	100	ug/l		6020	11/25/14	1
Lead	U	0.24	2.0	ug/l		6020	11/25/14	1
Manganese	180	0.25	5.0	ug/l		6020	11/25/14	1
Potassium	1300	37.	1000	ug/l		6020	11/25/14	1
Selenium	U	0.38	2.0	ug/l		6020	11/25/14	1
Sodium	490000	1100	10000	ug/l		6020	12/02/14	10
TPH (GC/FID) Low Fraction	1000	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	79.3			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	280	3.3	10.	ug/l		8260B	11/21/14	10
Bromodichloromethane	U	0.38	1.0	ug/l	J5J3	8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l	J5J3	8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l	J3	8260B	11/19/14	1
n-Butylbenzene	1.3	0.36	1.0	ug/l	J5J3	8260B	11/19/14	1
sec-Butylbenzene	3.3	0.36	1.0	ug/l	J3	8260B	11/19/14	1
Carbon disulfide	0.54	0.28	1.0	ug/l	J	8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l	J3	8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l	J5J3	8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l	J5J3	8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l	J4J6	8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l	J5J3	8260B	11/19/14	1
Chloromethane	1.0	0.28	2.5	ug/l	J	8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l	J5J3	8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l	J3	8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l	J3	8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l	J3	8260B	11/19/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Mt. Juliet, TN 37122
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Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-115

Sample ID : MW-109

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 12:20

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l	J5J3	8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l	J5J3	8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l	J5J3	8260B	11/19/14	1
Ethylbenzene	20.	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	28.	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l	J3	8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l	J5	8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l	J5J3	8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l	J5J3	8260B	11/19/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l	J3	8260B	11/19/14	1
Naphthalene	2.6	1.0	5.0	ug/l	JJ4J5J3	8260B	11/19/14	1
n-Propylbenzene	21.	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l	J5J3	8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l	J5J3	8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l	J5J3	8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l	J3	8260B	11/19/14	1
Toluene	5.7	0.78	5.0	ug/l	J3	8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l	J5J3	8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l	J3	8260B	11/19/14	1
1,2,4-Trimethylbenzene	0.63	0.37	1.0	ug/l	JJ3	8260B	11/19/14	1
1,3,5-Trimethylbenzene	0.40	0.39	1.0	ug/l	JJ5J3	8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	0.36	0.34	1.0	ug/l	JJ5J3	8260B	11/19/14	1
m&p-Xylene	2.7	0.72	2.0	ug/l	J3	8260B	11/19/14	1
Xylenes, Total	3.1	1.1	3.0	ug/l	J3J5	8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	96.6			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	109.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	3700	22.	100	ug/l		8015	11/18/14	1
C28-C40 Oil Range	430	12.	100	ug/l		8015	11/18/14	1
Surrogate Recovery								
o-Terphenyl	122.			% Rec.		8015	11/18/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-116

Sample ID : MW-110

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 11:35

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	86000	52.	1000	ug/l		300.0	11/21/14	1
Fluoride	1500	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	1100000	3900	250000	ug/l		300.0	11/21/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1200000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	51.	0.25	2.0	ug/l		6020	11/25/14	1
Barium	48.	0.36	5.0	ug/l		6020	11/25/14	1
Calcium	100000	460	10000	ug/l		6020	12/02/14	10
Chromium	0.74	0.54	1.0	ug/l	J	6020	11/25/14	1
Iron	1200	50.	100	ug/l		6020	11/25/14	1
Lead	U	0.24	2.0	ug/l		6020	11/25/14	1
Manganese	1800	0.25	5.0	ug/l		6020	11/25/14	1
Potassium	140	37.	1000	ug/l	J	6020	11/25/14	1
Selenium	0.38	0.38	2.0	ug/l	J	6020	11/25/14	1
Sodium	270000	1100	10000	ug/l		6020	12/02/14	10
TPH (GC/FID) Low Fraction	470	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	96.4			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	1.5	0.33	1.0	ug/l		8260B	11/20/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	1.5	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l	J4	8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-116

Sample ID : MW-110

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 11:35

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
Ethylbenzene	1.6	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	2.2	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	1.7	1.0	5.0	ug/l	JJ4	8260B	11/19/14	1
n-Propylbenzene	1.5	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	1.0	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	97.6			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	109.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	820	22.	100	ug/l		8015	11/18/14	1
C28-C40 Oil Range	140	12.	100	ug/l		8015	11/18/14	1
Surrogate Recovery								
o-Terphenyl	114.			% Rec.		8015	11/18/14	1

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-111
Collected By : SU/HMI Team
Collection Date : 11/12/14 13:30

ESC Sample # : L733743-117

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	510000	2600	50000	ug/l		300.0	11/21/14	50
Fluoride	2000	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	250000	390	25000	ug/l		300.0	11/24/14	5
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1700000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	14.	0.25	2.0	ug/l		6020	11/25/14	1
Barium	220	0.36	5.0	ug/l		6020	11/25/14	1
Calcium	260000	460	10000	ug/l		6020	12/02/14	10
Chromium	2.4	0.54	1.0	ug/l		6020	11/25/14	1
Iron	8000	50.	100	ug/l		6020	11/25/14	1
Lead	1.3	0.24	2.0	ug/l	J	6020	11/25/14	1
Manganese	1600	0.25	5.0	ug/l		6020	11/25/14	1
Potassium	490	37.	1000	ug/l	J	6020	11/25/14	1
Selenium	0.46	0.38	2.0	ug/l	J	6020	11/25/14	1
Sodium	220000	1100	10000	ug/l		6020	12/02/14	10
TPH (GC/FID) Low Fraction	1700	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.0			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	180	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	0.52	0.36	1.0	ug/l	J	8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l	J4	8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)

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Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-117

Sample ID : MW-111

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 13:30

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
Ethylbenzene	26.	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	2.4	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	1600	0.37	1.0	ug/l	E	8260B	11/19/14	1
Naphthalene	6.4	1.0	5.0	ug/l	J4	8260B	11/19/14	1
n-Propylbenzene	2.2	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	1.6	0.78	5.0	ug/l	J	8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	7.4	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	1.7	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	5.2	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	22.	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	27.	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	107.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	98.8			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	111.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	2000	22.	100	ug/l		8015	11/18/14	1
C28-C40 Oil Range	430	12.	100	ug/l		8015	11/18/14	1
Surrogate Recovery								
o-Terphenyl	115.			% Rec.		8015	11/18/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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Mt. Juliet, TN 37122
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-113
Collected By : SU/HMI Team
Collection Date : 11/13/14 12:25

ESC Sample # : L733743-118

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	180000	520	10000	ug/l		300.0	11/22/14	10
Fluoride	560	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	800000	770	50000	ug/l		300.0	11/22/14	10
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1900000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	8.8	0.25	2.0	ug/l		6020	11/25/14	1
Barium	47.	0.36	5.0	ug/l		6020	11/25/14	1
Calcium	300000	460	10000	ug/l		6020	12/02/14	10
Chromium	0.59	0.54	1.0	ug/l	J	6020	11/25/14	1
Iron	680	50.	100	ug/l		6020	11/25/14	1
Lead	0.25	0.24	2.0	ug/l	J	6020	11/25/14	1
Manganese	1900	0.25	5.0	ug/l		6020	11/25/14	1
Potassium	400	37.	1000	ug/l	J	6020	11/25/14	1
Selenium	0.44	0.38	2.0	ug/l	J	6020	11/25/14	1
Sodium	160000	1100	10000	ug/l		6020	12/02/14	10
TPH (GC/FID) Low Fraction	2400	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	91.4			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	1500	8.3	25.	ug/l		8260B	11/20/14	25
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	0.81	0.36	1.0	ug/l	J	8260B	11/19/14	1
sec-Butylbenzene	1.1	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l	J4	8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	0.52	0.36	1.0	ug/l	J	8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)

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Mt. Juliet, TN 37122
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1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-118

Sample ID : MW-113

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 12:25

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
Ethylbenzene	7.0	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	9.7	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	0.94	0.35	1.0	ug/l	J	8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	20.	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	48.	1.0	5.0	ug/l	J4	8260B	11/19/14	1
n-Propylbenzene	3.3	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	4.6	0.78	5.0	ug/l	J	8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	41.	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	7.1	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	16.	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	86.	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	100	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	90.3			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	112.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	640	22.	100	ug/l		8015	11/20/14	1
C28-C40 Oil Range	23.	12.	100	ug/l	J	8015	11/20/14	1
Surrogate Recovery								
o-Terphenyl	128.			% Rec.		8015	11/20/14	1

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REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-114

Collected By : SU/HMI Team
Collection Date : 11/12/14 13:35

ESC Sample # : L733743-119

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	200000	1000	20000	ug/l		300.0	11/22/14	20
Fluoride	2200	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	2300000	3900	250000	ug/l		300.0	11/24/14	50
Nitrate-Nitrite	360	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	3400000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	3.1	0.25	2.0	ug/l		6020	11/25/14	1
Barium	26.	0.36	5.0	ug/l		6020	11/25/14	1
Calcium	620000	460	10000	ug/l		6020	12/02/14	10
Chromium	2.3	0.54	1.0	ug/l		6020	11/25/14	1
Iron	810	50.	100	ug/l		6020	11/25/14	1
Lead	0.55	0.24	2.0	ug/l	J	6020	11/25/14	1
Manganese	1200	0.25	5.0	ug/l		6020	11/25/14	1
Potassium	2700	37.	1000	ug/l		6020	11/25/14	1
Selenium	1.8	0.38	2.0	ug/l	J	6020	11/25/14	1
Sodium	130000	1100	10000	ug/l		6020	12/02/14	10
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	99.3			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/20/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l	J4	8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)

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1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-119

Sample ID : MW-114

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 13:35

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	1.2	1.0	5.0	ug/l	JJ4	8260B	11/19/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	98.1			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	109.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	32.	22.	100	ug/l	J	8015	11/18/14	1
C28-C40 Oil Range	100	12.	100	ug/l		8015	11/18/14	1
Surrogate Recovery								
o-Terphenyl	110.			% Rec.		8015	11/18/14	1

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-115
Collected By : SU/HMI Team
Collection Date : 11/12/14 12:50

ESC Sample # : L733743-120

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	500000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	1500	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	3000000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	5700000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	3.4	0.25	2.0	ug/l		6020	12/01/14	1
Barium	15.	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	690000	460	10000	ug/l	V	6020	12/01/14	10
Chromium	0.86	0.54	1.0	ug/l	J	6020	12/01/14	1
Iron	130	50.	100	ug/l		6020	12/01/14	1
Lead	0.24	0.24	2.0	ug/l	J	6020	12/01/14	1
Manganese	30.	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	720	37.	1000	ug/l	J	6020	12/01/14	1
Selenium	2.8	0.38	2.0	ug/l		6020	12/01/14	1
Sodium	340000	1100	10000	ug/l	V	6020	12/01/14	10
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.7			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l	J4	8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Mt. Juliet, TN 37122
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1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-120

Sample ID : MW-115

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 12:50

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	U	1.0	5.0	ug/l	J4	8260B	11/19/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	99.7			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	110.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	110	22.	100	ug/l		8015	11/18/14	1
C28-C40 Oil Range	190	12.	100	ug/l		8015	11/18/14	1
Surrogate Recovery								
o-Terphenyl	114.			% Rec.		8015	11/18/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-116

Collected By : SU/HMI Team
Collection Date : 11/12/14 12:00

ESC Sample # : L733743-121

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	240000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	1700	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	2200000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	740	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	3700000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	3.8	0.25	2.0	ug/l		6020	12/01/14	1
Barium	9.8	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	580000	460	10000	ug/l		6020	12/01/14	10
Chromium	1.0	0.54	1.0	ug/l	J	6020	12/01/14	1
Iron	110	50.	100	ug/l		6020	12/01/14	1
Lead	U	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	4.2	0.25	5.0	ug/l	J	6020	12/01/14	1
Potassium	1600	37.	1000	ug/l		6020	12/01/14	1
Selenium	5.5	0.38	2.0	ug/l		6020	12/01/14	1
Sodium	230000	1100	10000	ug/l		6020	12/01/14	10
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.9			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l	J4	8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Mt. Juliet, TN 37122
(615) 758-5858
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Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-121

Sample ID : MW-116

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 12:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	U	1.0	5.0	ug/l	J4	8260B	11/19/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	98.0			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	106.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	26.	22.	100	ug/l	J	8015	11/18/14	1
C28-C40 Oil Range	74.	12.	100	ug/l	J	8015	11/18/14	1
Surrogate Recovery								
o-Terphenyl	114.			% Rec.		8015	11/18/14	1

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(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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Est. 1970

REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-117

Collected By : SU/HMI Team
Collection Date : 11/13/14 14:00

ESC Sample # : L733743-122

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	96000	52.	1000	ug/l		300.0	11/21/14	1
Fluoride	3000	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	2000000	3900	250000	ug/l		300.0	11/21/14	50
Nitrate-Nitrite	650	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	3000000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	2.5	0.25	2.0	ug/l		6020	12/01/14	1
Barium	20.	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	610000	460	10000	ug/l		6020	12/01/14	10
Chromium	3.1	0.54	1.0	ug/l		6020	12/01/14	1
Iron	950	50.	100	ug/l		6020	12/01/14	1
Lead	0.72	0.24	2.0	ug/l	J	6020	12/01/14	1
Manganese	14.	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	5200	37.	1000	ug/l		6020	12/01/14	1
Selenium	7.7	0.38	2.0	ug/l		6020	12/01/14	1
Sodium	110000	1100	10000	ug/l		6020	12/01/14	10
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	99.2			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l	J4	8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-117
Collected By : SU/HMI Team
Collection Date : 11/13/14 14:00

ESC Sample # : L733743-122

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	U	1.0	5.0	ug/l	J4	8260B	11/19/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	98.8			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	109.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	29.	22.	100	ug/l	J	8015	11/20/14	1
C28-C40 Oil Range	U	12.	100	ug/l		8015	11/20/14	1
Surrogate Recovery								
o-Terphenyl	116.			% Rec.		8015	11/20/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-118
Collected By : SU/HMI Team
Collection Date : 11/13/14 15:05

ESC Sample # : L733743-123

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	160000	2600	50000	ug/l	J6	300.0	11/22/14	50
Fluoride	4900	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	2700000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	980	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	3700000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	12.	0.25	2.0	ug/l	J	6020	12/01/14	1
Barium	33.	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	670000	460	10000	ug/l		6020	12/01/14	10
Chromium	3.2	0.54	1.0	ug/l		6020	12/01/14	1
Iron	1100	50.	100	ug/l		6020	12/01/14	1
Lead	1.0	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	20.	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	6200	37.	1000	ug/l		6020	12/01/14	1
Selenium	6.5	0.38	2.0	ug/l		6020	12/01/14	1
Sodium	140000	1100	10000	ug/l		6020	12/01/14	10
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.7			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l	J4	8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-123

Sample ID : MW-118

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 15:05

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	U	1.0	5.0	ug/l	J4	8260B	11/19/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	98.6			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	109.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	32.	22.	100	ug/l	J	8015	11/20/14	1
C28-C40 Oil Range	U	12.	100	ug/l		8015	11/20/14	1
Surrogate Recovery								
o-Terphenyl	117.			% Rec.		8015	11/20/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-124

Sample ID : MW-119

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 15:50

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	49000	52.	1000	ug/l		300.0	11/21/14	1
Fluoride	2600	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	2300000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	3200000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	6.2	0.25	2.0	ug/l		6020	12/01/14	1
Barium	60.	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	670000	460	10000	ug/l		6020	12/01/14	10
Chromium	4.2	0.54	1.0	ug/l		6020	12/01/14	1
Iron	2300	50.	100	ug/l		6020	12/01/14	1
Lead	1.6	0.24	2.0	ug/l	J	6020	12/01/14	1
Manganese	62.	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	1800	37.	1000	ug/l		6020	12/01/14	1
Selenium	1.3	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	77000	110	1000	ug/l		6020	12/01/14	1
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	99.1			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l	J4	8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-124

Sample ID : MW-119

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 15:50

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	U	1.0	5.0	ug/l	J4	8260B	11/19/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	98.7			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	112.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	53.	22.	100	ug/l	J	8015	11/20/14	1
C28-C40 Oil Range	U	12.	100	ug/l		8015	11/20/14	1
Surrogate Recovery								
o-Terphenyl	119.			% Rec.		8015	11/20/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-125

Sample ID : MW-125

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 11:15

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	340000	5200	100000	ug/l		300.0	11/22/14	100
Fluoride	1000	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	2900000	7700	500000	ug/l		300.0	11/22/14	100
Nitrate-Nitrite	200	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	4100000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	3.6	0.25	2.0	ug/l		6020	12/01/14	1
Barium	9.2	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	610000	460	10000	ug/l		6020	12/01/14	10
Chromium	0.56	0.54	1.0	ug/l	J	6020	12/01/14	1
Iron	U	50.	100	ug/l		6020	12/01/14	1
Lead	U	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	420	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	1300	37.	1000	ug/l		6020	12/01/14	1
Selenium	3.3	0.38	2.0	ug/l		6020	12/01/14	1
Sodium	260000	1100	10000	ug/l		6020	12/01/14	10
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	99.1			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/19/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/19/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/19/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/19/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/19/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/19/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/19/14	1
Chloroethane	U	0.45	5.0	ug/l	J4	8260B	11/19/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/19/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/19/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/19/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/19/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-125

Sample ID : MW-125

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 11:15

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/19/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/19/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/19/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/19/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/19/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/19/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/19/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/19/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/19/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/19/14	1
Naphthalene	U	1.0	5.0	ug/l	J4	8260B	11/19/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/19/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/19/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/19/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/19/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/19/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/19/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/19/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/19/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/19/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/19/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/19/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/19/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/19/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/19/14	1
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	11/19/14	1
Dibromofluoromethane	97.9			% Rec.		8260B	11/19/14	1
4-Bromofluorobenzene	115.			% Rec.		8260B	11/19/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	47.	22.	100	ug/l	J	8015	11/18/14	1
C28-C40 Oil Range	74.	12.	100	ug/l	J	8015	11/18/14	1
Surrogate Recovery								
o-Terphenyl	109.			% Rec.		8015	11/18/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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Mt. Juliet, TN 37122
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-126A

Collected By : SU/HMI Team
Collection Date : 11/12/14 09:50

ESC Sample # : L733743-126

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	190000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	980	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	1400000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	2400000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	2.1	0.25	2.0	ug/l		6020	12/01/14	1
Barium	28.	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	360000	460	10000	ug/l		6020	12/01/14	10
Chromium	1.7	0.54	1.0	ug/l		6020	12/01/14	1
Iron	1700	50.	100	ug/l		6020	12/01/14	1
Lead	1.0	0.24	2.0	ug/l	J	6020	12/01/14	1
Manganese	790	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	660	37.	1000	ug/l	J	6020	12/01/14	1
Selenium	0.53	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	180000	1100	10000	ug/l		6020	12/01/14	10
TPH (GC/FID) Low Fraction	410	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	99.8			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/20/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/20/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/20/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/20/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/20/14	1
sec-Butylbenzene	3.0	0.36	1.0	ug/l		8260B	11/20/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/20/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/20/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/20/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/20/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/20/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/20/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/20/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/20/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-126

Sample ID : MW-126A

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 09:50

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/20/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/20/14	1
Isopropylbenzene	16.	0.33	1.0	ug/l		8260B	11/20/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/20/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/20/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/20/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/20/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/20/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/20/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/20/14	1
n-Propylbenzene	3.2	0.35	1.0	ug/l		8260B	11/20/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/20/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/20/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/20/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/20/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/20/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/20/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/20/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/20/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/20/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/20/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/20/14	1
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	100.			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	99.6			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	880	22.	100	ug/l		8015	11/18/14	1
C28-C40 Oil Range	170	12.	100	ug/l		8015	11/18/14	1
Surrogate Recovery								
o-Terphenyl	114.			% Rec.		8015	11/18/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-126B

Collected By : SU/HMI Team
Collection Date : 11/12/14 10:30

ESC Sample # : L733743-127

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	290000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	680	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	2400000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	390	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	3500000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	3.9	0.25	2.0	ug/l		6020	12/01/14	1
Barium	17.	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	600000	460	10000	ug/l		6020	12/01/14	10
Chromium	1.3	0.54	1.0	ug/l		6020	12/01/14	1
Iron	390	50.	100	ug/l		6020	12/01/14	1
Lead	0.64	0.24	2.0	ug/l	J	6020	12/01/14	1
Manganese	98.	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	2400	37.	1000	ug/l		6020	12/01/14	1
Selenium	2.6	0.38	2.0	ug/l		6020	12/01/14	1
Sodium	210000	1100	10000	ug/l		6020	12/01/14	10
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	99.4			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l	J3	8260B	11/20/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/20/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/20/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/20/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/20/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/20/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/20/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/20/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/20/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/20/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/20/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/20/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/20/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/20/14	1

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Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-127

Sample ID : MW-126B

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 10:30

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/20/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/20/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/20/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/20/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/20/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/20/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/20/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/20/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/20/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/20/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/20/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/20/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/20/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/20/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/20/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/20/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/20/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/20/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/20/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/20/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/20/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/20/14	1
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	103.			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	93.1			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	280	22.	100	ug/l		8015	11/18/14	1
C28-C40 Oil Range	140	12.	100	ug/l		8015	11/18/14	1
Surrogate Recovery								
o-Terphenyl	113.			% Rec.		8015	11/18/14	1

U = ND (Not Detected)

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-127
Collected By : SU/HMI Team
Collection Date : 11/12/14 11:15

ESC Sample # : L733743-128
Site ID : REST
Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	240000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	930	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	620000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1800000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	6.4	0.25	2.0	ug/l		6020	12/01/14	1
Barium	1200	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	290000	460	10000	ug/l		6020	12/01/14	10
Chromium	3.5	0.54	1.0	ug/l		6020	12/01/14	1
Iron	3900	50.	100	ug/l		6020	12/01/14	1
Lead	2.0	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	140	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	990	37.	1000	ug/l	J	6020	12/01/14	1
Selenium	1.2	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	160000	1100	10000	ug/l		6020	12/01/14	10
TPH (GC/FID) Low Fraction	6100	310	1000	ug/l		8015D/G	11/20/14	10
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.2			% Rec.		8015D/G	11/20/14	10
Volatile Organics								
Acetone	U	10.	50.	ug/l	J3	8260B	11/20/14	1
Benzene	1800	8.3	25.	ug/l		8260B	11/21/14	25
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/20/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/20/14	1
n-Butylbenzene	1.3	0.36	1.0	ug/l		8260B	11/20/14	1
sec-Butylbenzene	2.0	0.36	1.0	ug/l		8260B	11/20/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/20/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/20/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/20/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/20/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/20/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/20/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/20/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/20/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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Mt. Juliet, TN 37122
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1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-128

Sample ID : MW-127

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 11:15

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/20/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
Ethylbenzene	240	9.6	25.	ug/l		8260B	11/21/14	25
Isopropylbenzene	12.	0.33	1.0	ug/l		8260B	11/20/14	1
p-Isopropyltoluene	1.8	0.35	1.0	ug/l		8260B	11/20/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/20/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/20/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/20/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/20/14	1
Methyl tert-butyl ether	760	9.2	25.	ug/l		8260B	11/21/14	25
Naphthalene	40.	1.0	5.0	ug/l		8260B	11/20/14	1
n-Propylbenzene	20.	0.35	1.0	ug/l		8260B	11/20/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/20/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/20/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/20/14	1
Toluene	150	0.78	5.0	ug/l		8260B	11/20/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/20/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2,4-Trimethylbenzene	78.	0.37	1.0	ug/l		8260B	11/20/14	1
1,3,5-Trimethylbenzene	6.1	0.39	1.0	ug/l		8260B	11/20/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/20/14	1
o-Xylene	68.	0.34	1.0	ug/l		8260B	11/20/14	1
m&p-Xylene	82.	0.72	2.0	ug/l		8260B	11/20/14	1
Xylenes, Total	150	1.1	3.0	ug/l		8260B	11/20/14	1
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	106.			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	94.9			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	1300	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	160	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	113.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-128
Collected By : SU/HMI Team
Collection Date : 11/12/14 10:30

ESC Sample # : L733743-129

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	320000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	1100	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	250000	390	25000	ug/l		300.0	11/24/14	5
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1400000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	62.	0.25	2.0	ug/l		6020	12/01/14	1
Barium	94.	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	250000	460	10000	ug/l		6020	12/01/14	10
Chromium	5.1	0.54	1.0	ug/l		6020	12/01/14	1
Iron	5000	50.	100	ug/l		6020	12/01/14	1
Lead	13.	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	2600	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	1200	37.	1000	ug/l		6020	12/01/14	1
Selenium	1.2	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	110000	1100	10000	ug/l		6020	12/01/14	10
TPH (GC/FID) Low Fraction	1200	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.3			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	16.	10.	50.	ug/l	JJ3	8260B	11/20/14	1
Benzene	120	0.33	1.0	ug/l		8260B	11/20/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/20/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/20/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/20/14	1
sec-Butylbenzene	0.59	0.36	1.0	ug/l	J	8260B	11/20/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/20/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/20/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/20/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/20/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/20/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/20/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/20/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/20/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-129

Sample ID : MW-128

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 10:30

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/20/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
Ethylbenzene	12.	0.38	1.0	ug/l		8260B	11/20/14	1
Isopropylbenzene	2.3	0.33	1.0	ug/l		8260B	11/20/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/20/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/20/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/20/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/20/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/20/14	1
Methyl tert-butyl ether	950	0.37	1.0	ug/l	E	8260B	11/20/14	1
Naphthalene	6.1	1.0	5.0	ug/l		8260B	11/20/14	1
n-Propylbenzene	3.2	0.35	1.0	ug/l		8260B	11/20/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/20/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/20/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/20/14	1
Toluene	0.92	0.78	5.0	ug/l	J	8260B	11/20/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/20/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2,4-Trimethylbenzene	2.8	0.37	1.0	ug/l		8260B	11/20/14	1
1,3,5-Trimethylbenzene	0.48	0.39	1.0	ug/l	J	8260B	11/20/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/20/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/20/14	1
m&p-Xylene	5.5	0.72	2.0	ug/l		8260B	11/20/14	1
Xylenes, Total	5.5	1.1	3.0	ug/l		8260B	11/20/14	1
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	94.4			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	98.2			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	2400	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	490	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	113.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)

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(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-130

Collected By : SU/HMI Team
Collection Date : 11/13/14 10:10

ESC Sample # : L733743-130

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	250000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	730	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	1200000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	350	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	2600000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	4.6	0.25	2.0	ug/l		6020	12/01/14	1
Barium	26.	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	310000	460	10000	ug/l		6020	12/01/14	10
Chromium	2.5	0.54	1.0	ug/l		6020	12/01/14	1
Iron	1200	50.	100	ug/l		6020	12/01/14	1
Lead	1.2	0.24	2.0	ug/l	J	6020	12/01/14	1
Manganese	120	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	1000	37.	1000	ug/l		6020	12/01/14	1
Selenium	3.7	0.38	2.0	ug/l		6020	12/01/14	1
Sodium	310000	1100	10000	ug/l		6020	12/01/14	10
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	99.5			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l	J3	8260B	11/20/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/20/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/20/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/20/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/20/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/20/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/20/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/20/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/20/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/20/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/20/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/20/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/20/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/20/14	1

U = ND (Not Detected)

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REPORT OF ANALYSIS

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ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-130

Sample ID : MW-130

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 10:10

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/20/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/20/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/20/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/20/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/20/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/20/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/20/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/20/14	1
Methyl tert-butyl ether	1.2	0.37	1.0	ug/l		8260B	11/20/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/20/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/20/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/20/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/20/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/20/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/20/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/20/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/20/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/20/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/20/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/20/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/20/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/20/14	1
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	100.			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	94.2			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	700	22.	100	ug/l		8015	11/20/14	1
C28-C40 Oil Range	140	12.	100	ug/l		8015	11/20/14	1
Surrogate Recovery								
o-Terphenyl	124.			% Rec.		8015	11/20/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-131

Sample ID : MW-131

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 09:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	290000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	470	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	8300	77.	5000	ug/l		300.0	11/21/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1200000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	23.	0.25	2.0	ug/l		6020	12/01/14	1
Barium	2600	3.6	50.	ug/l		6020	12/01/14	10
Calcium	200000	460	10000	ug/l		6020	12/01/14	10
Chromium	2.8	0.54	1.0	ug/l		6020	12/01/14	1
Iron	3800	50.	100	ug/l		6020	12/01/14	1
Lead	1.4	0.24	2.0	ug/l	J	6020	12/01/14	1
Manganese	360	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	640	37.	1000	ug/l	J	6020	12/01/14	1
Selenium	0.50	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	160000	1100	10000	ug/l		6020	12/01/14	10
TPH (GC/FID) Low Fraction	9100	780	2500	ug/l		8015D/G	11/20/14	25
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.4			% Rec.		8015D/G	11/20/14	25
Volatile Organics								
Acetone	U	100	500	ug/l	J3	8260B	11/20/14	10
Benzene	1800	3.3	10.	ug/l		8260B	11/20/14	10
Bromodichloromethane	U	3.8	10.	ug/l		8260B	11/20/14	10
Bromoform	U	4.7	10.	ug/l		8260B	11/20/14	10
Bromomethane	U	8.7	50.	ug/l		8260B	11/20/14	10
n-Butylbenzene	5.6	3.6	10.	ug/l	J	8260B	11/20/14	10
sec-Butylbenzene	4.7	3.6	10.	ug/l	J	8260B	11/20/14	10
Carbon disulfide	U	2.8	10.	ug/l		8260B	11/20/14	10
Carbon tetrachloride	U	3.8	10.	ug/l		8260B	11/20/14	10
Chlorobenzene	U	3.5	10.	ug/l		8260B	11/20/14	10
Chlorodibromomethane	U	3.3	10.	ug/l		8260B	11/20/14	10
Chloroethane	U	4.5	50.	ug/l		8260B	11/20/14	10
Chloroform	U	3.2	50.	ug/l		8260B	11/20/14	10
Chloromethane	U	2.8	25.	ug/l		8260B	11/20/14	10
1,2-Dibromoethane	U	3.8	10.	ug/l		8260B	11/20/14	10
1,1-Dichloroethane	U	2.6	10.	ug/l		8260B	11/20/14	10
1,2-Dichloroethane	U	3.6	10.	ug/l		8260B	11/20/14	10
1,1-Dichloroethene	U	4.0	10.	ug/l		8260B	11/20/14	10
cis-1,2-Dichloroethene	U	2.6	10.	ug/l		8260B	11/20/14	10

U = ND (Not Detected)

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-131

Sample ID : MW-131

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 09:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	4.0	10.	ug/l		8260B	11/20/14	10
1,2-Dichloropropane	U	3.1	10.	ug/l		8260B	11/20/14	10
cis-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/20/14	10
trans-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/20/14	10
Ethylbenzene	67.	3.8	10.	ug/l		8260B	11/20/14	10
Isopropylbenzene	16.	3.3	10.	ug/l		8260B	11/20/14	10
p-Isopropyltoluene	3.6	3.5	10.	ug/l	J	8260B	11/20/14	10
2-Butanone (MEK)	U	39.	100	ug/l		8260B	11/20/14	10
2-Hexanone	U	38.	100	ug/l		8260B	11/20/14	10
Methylene Chloride	U	10.	50.	ug/l		8260B	11/20/14	10
4-Methyl-2-pentanone (MIBK)	U	21.	100	ug/l		8260B	11/20/14	10
Methyl tert-butyl ether	5600	3.7	10.	ug/l	E	8260B	11/20/14	10
Naphthalene	43.	10.	50.	ug/l	J	8260B	11/20/14	10
n-Propylbenzene	30.	3.5	10.	ug/l		8260B	11/20/14	10
Styrene	U	3.1	10.	ug/l		8260B	11/20/14	10
1,1,1,2-Tetrachloroethane	U	3.8	10.	ug/l		8260B	11/20/14	10
1,1,2,2-Tetrachloroethane	U	1.3	10.	ug/l		8260B	11/20/14	10
Tetrachloroethene	U	3.7	10.	ug/l		8260B	11/20/14	10
Toluene	310	7.8	50.	ug/l		8260B	11/20/14	10
1,1,1-Trichloroethane	U	3.2	10.	ug/l		8260B	11/20/14	10
1,1,2-Trichloroethane	U	3.8	10.	ug/l		8260B	11/20/14	10
Trichloroethene	U	4.0	10.	ug/l		8260B	11/20/14	10
1,2,4-Trimethylbenzene	58.	3.7	10.	ug/l		8260B	11/20/14	10
1,3,5-Trimethylbenzene	16.	3.9	10.	ug/l		8260B	11/20/14	10
Vinyl chloride	U	2.6	10.	ug/l		8260B	11/20/14	10
o-Xylene	65.	3.4	10.	ug/l		8260B	11/20/14	10
m&p-Xylene	120	7.2	20.	ug/l		8260B	11/20/14	10
Xylenes, Total	180	11.	30.	ug/l		8260B	11/20/14	10
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	91.3			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	96.9			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	3700	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	290	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	112.			% Rec.		8015	11/19/14	1

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1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-134

Collected By : SU/HMI Team
Collection Date : 11/12/14 11:40

ESC Sample # : L733743-132

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	580000	2600	50000	ug/l		300.0	11/21/14	50
Fluoride	910	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	3100000	3900	250000	ug/l		300.0	11/21/14	50
Nitrate-Nitrite	7400	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	4600000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	5.9	0.25	2.0	ug/l		6020	12/01/14	1
Barium	15.	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	660000	460	10000	ug/l		6020	12/01/14	10
Chromium	2.4	0.54	1.0	ug/l		6020	12/01/14	1
Iron	360	50.	100	ug/l		6020	12/01/14	1
Lead	0.24	0.24	2.0	ug/l	J	6020	12/01/14	1
Manganese	31.	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	1800	37.	1000	ug/l		6020	12/01/14	1
Selenium	12.	0.38	2.0	ug/l		6020	12/01/14	1
Silver	U	0.31	2.0	ug/l		6020	12/01/14	1
Sodium	310000	1100	10000	ug/l		6020	12/01/14	10
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/20/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	99.0			% Rec.		8015D/G	11/20/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l	J3	8260B	11/20/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/20/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/20/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/20/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/20/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/20/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/20/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/20/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/20/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/20/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/20/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/20/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/20/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1

U = ND (Not Detected)

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-132

Sample ID : MW-134

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 11:40

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/20/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/20/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/20/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/20/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/20/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/20/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/20/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/20/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/20/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/20/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/20/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/20/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/20/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/20/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/20/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/20/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/20/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/20/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/20/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/20/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/20/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/20/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/20/14	1
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	98.9			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	94.7			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	64.	22.	100	ug/l	J	8015	11/19/14	1
C28-C40 Oil Range	37.	12.	100	ug/l	J	8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	115.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)

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12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-133

Sample ID : MW-135

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 14:30

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	1300000	5200	100000	ug/l		300.0	11/22/14	100
Fluoride	780	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	2500000	7700	500000	ug/l		300.0	11/22/14	100
Nitrate-Nitrite	69000	200	1000	ug/l		353.2	11/20/14	10
Dissolved Solids	5600000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	8.8	0.25	2.0	ug/l		6020	12/01/14	1
Barium	410	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	840000	460	10000	ug/l		6020	12/01/14	10
Chromium	18.	0.54	1.0	ug/l		6020	12/01/14	1
Iron	9600	50.	100	ug/l		6020	12/01/14	1
Lead	10.	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	420	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	2800	37.	1000	ug/l		6020	12/01/14	1
Selenium	38.	0.38	2.0	ug/l		6020	12/01/14	1
Sodium	570000	1100	10000	ug/l		6020	12/01/14	10
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/22/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	100.			% Rec.		8015D/G	11/22/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l	J3	8260B	11/20/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/20/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/20/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/20/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/20/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/20/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/20/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/20/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/20/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/20/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/20/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/20/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/20/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/20/14	1

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Mt. Juliet, TN 37122
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Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-133

Sample ID : MW-135

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 14:30

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/20/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/20/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/20/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/20/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/20/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/20/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/20/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/20/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/20/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/20/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/20/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/20/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/20/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/20/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/20/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/20/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/20/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/20/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/20/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/20/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/20/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/20/14	1
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	99.3			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	97.1			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	310	22.	100	ug/l		8015	11/20/14	1
C28-C40 Oil Range	140	12.	100	ug/l		8015	11/20/14	1
Surrogate Recovery								
o-Terphenyl	135.			% Rec.		8015	11/20/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

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12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : RA-4798

Collected By : SU/HMI Team
Collection Date : 11/13/14 16:00

ESC Sample # : L733743-134

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	150000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	330	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	1400000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	1500	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	2200000	2800	10000	ug/l		2540 C-	11/20/14	1
Calcium	400000	460	10000	ug/l		6020	12/01/14	10
Potassium	2200	37.	1000	ug/l		6020	12/01/14	1
Sodium	110000	1100	10000	ug/l		6020	12/01/14	10
Volatile Organics								
Acetone	U	10.	50.	ug/l	J3	8260B	11/20/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/20/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/20/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/20/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/20/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/20/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/20/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/20/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/20/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/20/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/20/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/20/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/20/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloroethane	1.5	0.36	1.0	ug/l		8260B	11/20/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/20/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/20/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/20/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/20/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/20/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/20/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l		8260B	11/20/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/20/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/20/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/20/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : RA-4798

Collected By : SU/HMI Team
Collection Date : 11/13/14 16:00

ESC Sample # : L733743-134

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Methyl tert-butyl ether	8.6	0.37	1.0	ug/l		8260B	11/20/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/20/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/20/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/20/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/20/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/20/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/20/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/20/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/20/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/20/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/20/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/20/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/20/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/20/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/20/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/20/14	1
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	103.			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	95.3			% Rec.		8260B	11/20/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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Mt. Juliet, TN 37122
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Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-102
Collected By : SU/HMI Team
Collection Date : 11/13/14 13:15

ESC Sample # : L733743-135

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	220000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	610	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	590000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	2200000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	12.	0.25	2.0	ug/l		6020	12/01/14	1
Barium	250	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	290000	460	10000	ug/l		6020	12/01/14	10
Chromium	1.6	0.54	1.0	ug/l		6020	12/01/14	1
Iron	100	50.	100	ug/l	J	6020	12/01/14	1
Lead	2.6	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	49.	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	800	37.	1000	ug/l	J	6020	12/01/14	1
Selenium	1.3	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	430000	1100	10000	ug/l		6020	12/01/14	10
TPH (GC/FID) Low Fraction	36000	3100	10000	ug/l		8015D/G	11/21/14	100
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.2			% Rec.		8015D/G	11/21/14	100
Volatile Organics								
Acetone	U	500	2500	ug/l	J3	8260B	11/20/14	50
Benzene	11000	160	500	ug/l		8260B	11/21/14	500
Bromodichloromethane	U	19.	50.	ug/l		8260B	11/20/14	50
Bromoform	U	23.	50.	ug/l		8260B	11/20/14	50
Bromomethane	U	43.	250	ug/l		8260B	11/20/14	50
n-Butylbenzene	U	18.	50.	ug/l		8260B	11/20/14	50
sec-Butylbenzene	U	18.	50.	ug/l		8260B	11/20/14	50
Carbon disulfide	U	14.	50.	ug/l		8260B	11/20/14	50
Carbon tetrachloride	U	19.	50.	ug/l		8260B	11/20/14	50
Chlorobenzene	U	17.	50.	ug/l		8260B	11/20/14	50
Chlorodibromomethane	U	16.	50.	ug/l		8260B	11/20/14	50
Chloroethane	U	23.	250	ug/l		8260B	11/20/14	50
Chloroform	U	16.	250	ug/l		8260B	11/20/14	50
Chloromethane	U	14.	130	ug/l		8260B	11/20/14	50
1,2-Dibromoethane	U	19.	50.	ug/l		8260B	11/20/14	50
1,1-Dichloroethane	U	13.	50.	ug/l		8260B	11/20/14	50
1,2-Dichloroethane	U	18.	50.	ug/l		8260B	11/20/14	50
1,1-Dichloroethene	U	20.	50.	ug/l		8260B	11/20/14	50
cis-1,2-Dichloroethene	U	13.	50.	ug/l		8260B	11/20/14	50

U = ND (Not Detected)

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(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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Est. 1970

REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-135

Sample ID : MW-102

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 13:15

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	20.	50.	ug/l		8260B	11/20/14	50
1,2-Dichloropropane	U	15.	50.	ug/l		8260B	11/20/14	50
cis-1,3-Dichloropropene	U	21.	50.	ug/l		8260B	11/20/14	50
trans-1,3-Dichloropropene	U	21.	50.	ug/l		8260B	11/20/14	50
Ethylbenzene	990	19.	50.	ug/l		8260B	11/20/14	50
Isopropylbenzene	40.	16.	50.	ug/l	J	8260B	11/20/14	50
p-Isopropyltoluene	U	18.	50.	ug/l		8260B	11/20/14	50
2-Butanone (MEK)	U	200	500	ug/l		8260B	11/20/14	50
2-Hexanone	U	190	500	ug/l		8260B	11/20/14	50
Methylene Chloride	U	50.	250	ug/l		8260B	11/20/14	50
4-Methyl-2-pentanone (MIBK)	U	110	500	ug/l		8260B	11/20/14	50
Methyl tert-butyl ether	2000	18.	50.	ug/l		8260B	11/20/14	50
Naphthalene	180	50.	250	ug/l	J	8260B	11/20/14	50
n-Propylbenzene	57.	17.	50.	ug/l		8260B	11/20/14	50
Styrene	U	15.	50.	ug/l		8260B	11/20/14	50
1,1,1,2-Tetrachloroethane	U	19.	50.	ug/l		8260B	11/20/14	50
1,1,2,2-Tetrachloroethane	U	6.5	50.	ug/l		8260B	11/20/14	50
Tetrachloroethene	U	19.	50.	ug/l		8260B	11/20/14	50
Toluene	2000	39.	250	ug/l		8260B	11/20/14	50
1,1,1-Trichloroethane	U	16.	50.	ug/l		8260B	11/20/14	50
1,1,2-Trichloroethane	U	19.	50.	ug/l		8260B	11/20/14	50
Trichloroethene	U	20.	50.	ug/l		8260B	11/20/14	50
1,2,4-Trimethylbenzene	260	19.	50.	ug/l		8260B	11/20/14	50
1,3,5-Trimethylbenzene	59.	19.	50.	ug/l		8260B	11/20/14	50
Vinyl chloride	U	13.	50.	ug/l		8260B	11/20/14	50
o-Xylene	540	17.	50.	ug/l		8260B	11/20/14	50
m&p-Xylene	1300	36.	100	ug/l		8260B	11/20/14	50
Xylenes, Total	1800	53.	150	ug/l		8260B	11/20/14	50
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	92.6			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	96.1			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	9500	22.	100	ug/l		8015	11/20/14	1
C28-C40 Oil Range	830	12.	100	ug/l		8015	11/20/14	1
Surrogate Recovery								
o-Terphenyl	116.			% Rec.		8015	11/20/14	1

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REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-48

Collected By : SU/HMI Team
Collection Date : 11/13/14 09:20

ESC Sample # : L733743-136

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	410000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	290	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	260000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1800000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	33.	0.25	2.0	ug/l		6020	12/01/14	1
Barium	350	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	190000	460	10000	ug/l		6020	12/01/14	10
Chromium	3.1	0.54	1.0	ug/l		6020	12/01/14	1
Iron	1400	50.	100	ug/l		6020	12/01/14	1
Lead	12.	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	2000	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	2400	37.	1000	ug/l		6020	12/01/14	1
Selenium	1.4	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	380000	1100	10000	ug/l		6020	12/01/14	10
TPH (GC/FID) Low Fraction	4500	1600	5000	ug/l	J	8015D/G	11/21/14	50
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.1			% Rec.		8015D/G	11/21/14	50
Volatile Organics								
Acetone	U	250	1300	ug/l	J3	8260B	11/20/14	25
Benzene	140	8.3	25.	ug/l		8260B	11/20/14	25
Bromodichloromethane	U	9.5	25.	ug/l		8260B	11/20/14	25
Bromoform	U	12.	25.	ug/l		8260B	11/20/14	25
Bromomethane	U	22.	130	ug/l		8260B	11/20/14	25
n-Butylbenzene	U	9.0	25.	ug/l		8260B	11/20/14	25
sec-Butylbenzene	9.4	9.1	25.	ug/l	J	8260B	11/20/14	25
Carbon disulfide	U	6.9	25.	ug/l		8260B	11/20/14	25
Carbon tetrachloride	U	9.5	25.	ug/l		8260B	11/20/14	25
Chlorobenzene	U	8.7	25.	ug/l		8260B	11/20/14	25
Chlorodibromomethane	U	8.2	25.	ug/l		8260B	11/20/14	25
Chloroethane	U	11.	130	ug/l		8260B	11/20/14	25
Chloroform	U	8.1	130	ug/l		8260B	11/20/14	25
Chloromethane	U	6.9	63.	ug/l		8260B	11/20/14	25
1,2-Dibromoethane	U	9.5	25.	ug/l		8260B	11/20/14	25
1,1-Dichloroethane	U	6.5	25.	ug/l		8260B	11/20/14	25
1,2-Dichloroethane	U	9.0	25.	ug/l		8260B	11/20/14	25
1,1-Dichloroethene	U	10.	25.	ug/l		8260B	11/20/14	25
cis-1,2-Dichloroethene	U	6.5	25.	ug/l		8260B	11/20/14	25

U = ND (Not Detected)

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-136

Sample ID : MW-48

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 09:20

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	9.9	25.	ug/l		8260B	11/20/14	25
1,2-Dichloropropane	U	7.6	25.	ug/l		8260B	11/20/14	25
cis-1,3-Dichloropropene	U	10.	25.	ug/l		8260B	11/20/14	25
trans-1,3-Dichloropropene	U	10.	25.	ug/l		8260B	11/20/14	25
Ethylbenzene	75.	9.6	25.	ug/l		8260B	11/20/14	25
Isopropylbenzene	41.	8.2	25.	ug/l		8260B	11/20/14	25
p-Isopropyltoluene	U	8.8	25.	ug/l		8260B	11/20/14	25
2-Butanone (MEK)	U	98.	250	ug/l		8260B	11/20/14	25
2-Hexanone	U	96.	250	ug/l		8260B	11/20/14	25
Methylene Chloride	U	25.	130	ug/l		8260B	11/20/14	25
4-Methyl-2-pentanone (MIBK)	U	54.	250	ug/l		8260B	11/20/14	25
Methyl tert-butyl ether	1100	9.2	25.	ug/l		8260B	11/20/14	25
Naphthalene	28.	25.	130	ug/l	J	8260B	11/20/14	25
n-Propylbenzene	68.	8.7	25.	ug/l		8260B	11/20/14	25
Styrene	U	7.7	25.	ug/l		8260B	11/20/14	25
1,1,1,2-Tetrachloroethane	U	9.6	25.	ug/l		8260B	11/20/14	25
1,1,2,2-Tetrachloroethane	U	3.2	25.	ug/l		8260B	11/20/14	25
Tetrachloroethene	U	9.3	25.	ug/l		8260B	11/20/14	25
Toluene	30.	20.	130	ug/l	J	8260B	11/20/14	25
1,1,1-Trichloroethane	U	8.0	25.	ug/l		8260B	11/20/14	25
1,1,2-Trichloroethane	U	9.6	25.	ug/l		8260B	11/20/14	25
Trichloroethene	U	10.	25.	ug/l		8260B	11/20/14	25
1,2,4-Trimethylbenzene	200	9.3	25.	ug/l		8260B	11/20/14	25
1,3,5-Trimethylbenzene	U	9.7	25.	ug/l		8260B	11/20/14	25
Vinyl chloride	U	6.5	25.	ug/l		8260B	11/20/14	25
o-Xylene	10.	8.5	25.	ug/l	J	8260B	11/20/14	25
m&p-Xylene	120	18.	50.	ug/l		8260B	11/20/14	25
Xylenes, Total	130	26.	75.	ug/l		8260B	11/20/14	25
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	99.1			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	94.4			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	4000	22.	100	ug/l		8015	11/20/14	1
C28-C40 Oil Range	880	12.	100	ug/l		8015	11/20/14	1
Surrogate Recovery								
o-Terphenyl	108.			% Rec.		8015	11/20/14	1

U = ND (Not Detected)

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Mt. Juliet, TN 37122
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1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-65
Collected By : SU/HMI Team
Collection Date : 11/13/14 15:20

ESC Sample # : L733743-137

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	470000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	720	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	310000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1900000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	58.	0.25	2.0	ug/l		6020	12/01/14	1
Barium	370	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	260000	460	10000	ug/l		6020	12/01/14	10
Chromium	0.74	0.54	1.0	ug/l	J	6020	12/01/14	1
Iron	8600	50.	100	ug/l		6020	12/01/14	1
Lead	1.9	0.24	2.0	ug/l	J	6020	12/01/14	1
Manganese	2200	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	890	37.	1000	ug/l	J	6020	12/01/14	1
Selenium	0.42	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	290000	1100	10000	ug/l		6020	12/01/14	10
TPH (GC/FID) Low Fraction	27000	1600	5000	ug/l		8015D/G	11/21/14	50
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.0			% Rec.		8015D/G	11/21/14	50
Volatile Organics								
Acetone	U	500	2500	ug/l	J3	8260B	11/20/14	50
Benzene	8900	160	500	ug/l		8260B	11/21/14	500
Bromodichloromethane	U	19.	50.	ug/l		8260B	11/20/14	50
Bromoform	U	23.	50.	ug/l		8260B	11/20/14	50
Bromomethane	U	43.	250	ug/l		8260B	11/20/14	50
n-Butylbenzene	U	18.	50.	ug/l		8260B	11/20/14	50
sec-Butylbenzene	U	18.	50.	ug/l		8260B	11/20/14	50
Carbon disulfide	U	14.	50.	ug/l		8260B	11/20/14	50
Carbon tetrachloride	U	19.	50.	ug/l		8260B	11/20/14	50
Chlorobenzene	U	17.	50.	ug/l		8260B	11/20/14	50
Chlorodibromomethane	U	16.	50.	ug/l		8260B	11/20/14	50
Chloroethane	U	23.	250	ug/l		8260B	11/20/14	50
Chloroform	U	16.	250	ug/l		8260B	11/20/14	50
Chloromethane	U	14.	130	ug/l		8260B	11/20/14	50
1,2-Dibromoethane	U	19.	50.	ug/l		8260B	11/20/14	50
1,1-Dichloroethane	U	13.	50.	ug/l		8260B	11/20/14	50
1,2-Dichloroethane	U	18.	50.	ug/l		8260B	11/20/14	50
1,1-Dichloroethene	U	20.	50.	ug/l		8260B	11/20/14	50
cis-1,2-Dichloroethene	U	13.	50.	ug/l		8260B	11/20/14	50

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1-800-767-5859
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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-137

Sample ID : MW-65

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 15:20

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	20.	50.	ug/l		8260B	11/20/14	50
1,2-Dichloropropane	U	15.	50.	ug/l		8260B	11/20/14	50
cis-1,3-Dichloropropene	U	21.	50.	ug/l		8260B	11/20/14	50
trans-1,3-Dichloropropene	U	21.	50.	ug/l		8260B	11/20/14	50
Ethylbenzene	1200	19.	50.	ug/l		8260B	11/20/14	50
Isopropylbenzene	53.	16.	50.	ug/l		8260B	11/20/14	50
p-Isopropyltoluene	U	18.	50.	ug/l		8260B	11/20/14	50
2-Butanone (MEK)	U	200	500	ug/l		8260B	11/20/14	50
2-Hexanone	U	190	500	ug/l		8260B	11/20/14	50
Methylene Chloride	U	50.	250	ug/l		8260B	11/20/14	50
4-Methyl-2-pentanone (MIBK)	U	110	500	ug/l		8260B	11/20/14	50
Methyl tert-butyl ether	4700	18.	50.	ug/l		8260B	11/20/14	50
Methyl tert-butyl ether	3400	180	500	ug/l		8260B	11/20/14	50
Naphthalene	220	50.	250	ug/l	J	8260B	11/20/14	50
n-Propylbenzene	83.	17.	50.	ug/l		8260B	11/20/14	50
Styrene	U	15.	50.	ug/l		8260B	11/20/14	50
1,1,1,2-Tetrachloroethane	U	19.	50.	ug/l		8260B	11/20/14	50
1,1,2,2-Tetrachloroethane	U	6.5	50.	ug/l		8260B	11/20/14	50
Tetrachloroethene	U	19.	50.	ug/l		8260B	11/20/14	50
Toluene	U	39.	250	ug/l		8260B	11/20/14	50
1,1,1-Trichloroethane	U	16.	50.	ug/l		8260B	11/20/14	50
1,1,2-Trichloroethane	U	19.	50.	ug/l		8260B	11/20/14	50
Trichloroethene	U	20.	50.	ug/l		8260B	11/20/14	50
1,2,4-Trimethylbenzene	60.	19.	50.	ug/l		8260B	11/20/14	50
1,3,5-Trimethylbenzene	22.	19.	50.	ug/l	J	8260B	11/20/14	50
Vinyl chloride	U	13.	50.	ug/l		8260B	11/20/14	50
o-Xylene	25.	17.	50.	ug/l	J	8260B	11/20/14	50
m&p-Xylene	180	36.	100	ug/l		8260B	11/20/14	50
Xylenes, Total	210	53.	150	ug/l		8260B	11/20/14	50
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	92.7			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	98.9			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	15000	44.	200	ug/l		8015	11/20/14	2
C28-C40 Oil Range	1200	24.	200	ug/l		8015	11/20/14	2
Surrogate Recovery								
o-Terphenyl	118.			% Rec.		8015	11/20/14	2

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(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-99
Collected By : SU/HMI Team
Collection Date : 11/13/14 16:25

ESC Sample # : L733743-138

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	180000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	420	9.9	100	ug/l		300.0	11/21/14	1
Sulfate	140000	390	25000	ug/l		300.0	11/24/14	5
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1100000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	12.	0.25	2.0	ug/l		6020	12/01/14	1
Barium	430	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	170000	460	10000	ug/l		6020	12/01/14	10
Chromium	1.9	0.54	1.0	ug/l		6020	12/01/14	1
Iron	1200	50.	100	ug/l		6020	12/01/14	1
Lead	3.8	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	290	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	3900	37.	1000	ug/l		6020	12/01/14	1
Selenium	U	0.38	2.0	ug/l		6020	12/01/14	1
Sodium	170000	1100	10000	ug/l		6020	12/01/14	10
TPH (GC/FID) Low Fraction	14000	1600	5000	ug/l		8015D/G	11/21/14	50
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.6			% Rec.		8015D/G	11/21/14	50
Volatile Organics								
Acetone	U	100	500	ug/l	J3	8260B	11/20/14	10
Benzene	2600	33.	100	ug/l		8260B	11/21/14	100
Bromodichloromethane	U	3.8	10.	ug/l		8260B	11/20/14	10
Bromoform	U	4.7	10.	ug/l		8260B	11/20/14	10
Bromomethane	U	8.7	50.	ug/l		8260B	11/20/14	10
n-Butylbenzene	6.5	3.6	10.	ug/l	J	8260B	11/20/14	10
sec-Butylbenzene	8.1	3.6	10.	ug/l	J	8260B	11/20/14	10
Carbon disulfide	U	2.8	10.	ug/l		8260B	11/20/14	10
Carbon tetrachloride	U	3.8	10.	ug/l		8260B	11/20/14	10
Chlorobenzene	U	3.5	10.	ug/l		8260B	11/20/14	10
Chlorodibromomethane	U	3.3	10.	ug/l		8260B	11/20/14	10
Chloroethane	U	4.5	50.	ug/l		8260B	11/20/14	10
Chloroform	U	3.2	50.	ug/l		8260B	11/20/14	10
Chloromethane	U	2.8	25.	ug/l		8260B	11/20/14	10
1,2-Dibromoethane	U	3.8	10.	ug/l		8260B	11/20/14	10
1,1-Dichloroethane	U	2.6	10.	ug/l		8260B	11/20/14	10
1,2-Dichloroethane	U	3.6	10.	ug/l		8260B	11/20/14	10
1,1-Dichloroethene	U	4.0	10.	ug/l		8260B	11/20/14	10
cis-1,2-Dichloroethene	U	2.6	10.	ug/l		8260B	11/20/14	10

U = ND (Not Detected)

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-138

Sample ID : MW-99

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 16:25

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	4.0	10.	ug/l		8260B	11/20/14	10
1,2-Dichloropropane	U	3.1	10.	ug/l		8260B	11/20/14	10
cis-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/20/14	10
trans-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/20/14	10
Ethylbenzene	590	3.8	10.	ug/l		8260B	11/20/14	10
Isopropylbenzene	37.	3.3	10.	ug/l		8260B	11/20/14	10
p-Isopropyltoluene	8.3	3.5	10.	ug/l	J	8260B	11/20/14	10
2-Butanone (MEK)	U	39.	100	ug/l		8260B	11/20/14	10
2-Hexanone	U	38.	100	ug/l		8260B	11/20/14	10
Methylene Chloride	U	10.	50.	ug/l		8260B	11/20/14	10
4-Methyl-2-pentanone (MIBK)	U	21.	100	ug/l		8260B	11/20/14	10
Methyl tert-butyl ether	3400	3.7	10.	ug/l	E	8260B	11/20/14	10
Naphthalene	44.	10.	50.	ug/l	J	8260B	11/20/14	10
n-Propylbenzene	52.	3.5	10.	ug/l		8260B	11/20/14	10
Styrene	U	3.1	10.	ug/l		8260B	11/20/14	10
1,1,1,2-Tetrachloroethane	U	3.8	10.	ug/l		8260B	11/20/14	10
1,1,2,2-Tetrachloroethane	U	1.3	10.	ug/l		8260B	11/20/14	10
Tetrachloroethene	U	3.7	10.	ug/l		8260B	11/20/14	10
Toluene	580	7.8	50.	ug/l		8260B	11/20/14	10
1,1,1-Trichloroethane	U	3.2	10.	ug/l		8260B	11/20/14	10
1,1,2-Trichloroethane	U	3.8	10.	ug/l		8260B	11/20/14	10
Trichloroethene	U	4.0	10.	ug/l		8260B	11/20/14	10
1,2,4-Trimethylbenzene	330	3.7	10.	ug/l		8260B	11/20/14	10
1,3,5-Trimethylbenzene	36.	3.9	10.	ug/l		8260B	11/20/14	10
Vinyl chloride	U	2.6	10.	ug/l		8260B	11/20/14	10
o-Xylene	150	3.4	10.	ug/l		8260B	11/20/14	10
m&p-Xylene	690	7.2	20.	ug/l		8260B	11/20/14	10
Xylenes, Total	840	11.	30.	ug/l		8260B	11/20/14	10
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	94.5			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	98.5			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	2500	22.	100	ug/l		8015	11/20/14	1
C28-C40 Oil Range	440	12.	100	ug/l		8015	11/20/14	1
Surrogate Recovery								
o-Terphenyl	107.			% Rec.		8015	11/20/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

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Mt. Juliet, TN 37122
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1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-139

Sample ID : KWB-10R

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 11:55

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	190000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	590	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	U	77.	5000	ug/l		300.0	11/22/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1200000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	36.	0.25	2.0	ug/l		6020	12/01/14	1
Barium	3400	3.6	50.	ug/l		6020	12/01/14	10
Calcium	170000	460	10000	ug/l		6020	12/01/14	10
Chromium	1.0	0.54	1.0	ug/l		6020	12/01/14	1
Iron	8200	50.	100	ug/l		6020	12/01/14	1
Lead	4.2	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	190	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	510	37.	1000	ug/l	J	6020	12/01/14	1
Selenium	0.52	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	160000	1100	10000	ug/l		6020	12/01/14	10
Volatile Organics								
Acetone	U	250	1300	ug/l	J3	8260B	11/20/14	25
Benzene	5100	83.	250	ug/l		8260B	11/21/14	250
Bromodichloromethane	U	9.5	25.	ug/l		8260B	11/20/14	25
Bromoform	U	12.	25.	ug/l		8260B	11/20/14	25
Bromomethane	U	22.	130	ug/l		8260B	11/20/14	25
n-Butylbenzene	11.	9.0	25.	ug/l	J	8260B	11/20/14	25
sec-Butylbenzene	10.	9.1	25.	ug/l	J	8260B	11/20/14	25
Carbon disulfide	U	6.9	25.	ug/l		8260B	11/20/14	25
Carbon tetrachloride	U	9.5	25.	ug/l		8260B	11/20/14	25
Chlorobenzene	U	8.7	25.	ug/l		8260B	11/20/14	25
Chlorodibromomethane	U	8.2	25.	ug/l		8260B	11/20/14	25
Chloroethane	U	11.	130	ug/l		8260B	11/20/14	25
Chloroform	U	8.1	130	ug/l		8260B	11/20/14	25
Chloromethane	U	6.9	63.	ug/l		8260B	11/20/14	25
1,2-Dibromoethane	U	9.5	25.	ug/l		8260B	11/20/14	25
1,1-Dichloroethane	U	6.5	25.	ug/l		8260B	11/20/14	25
1,2-Dichloroethane	U	9.0	25.	ug/l		8260B	11/20/14	25
1,1-Dichloroethene	U	10.	25.	ug/l		8260B	11/20/14	25
cis-1,2-Dichloroethene	U	6.5	25.	ug/l		8260B	11/20/14	25
trans-1,2-Dichloroethene	U	9.9	25.	ug/l		8260B	11/20/14	25
1,2-Dichloropropane	U	7.6	25.	ug/l		8260B	11/20/14	25
cis-1,3-Dichloropropene	U	10.	25.	ug/l		8260B	11/20/14	25
trans-1,3-Dichloropropene	U	10.	25.	ug/l		8260B	11/20/14	25

U = ND (Not Detected)

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-139

Sample ID : KWB-10R

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 11:55

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Ethylbenzene	400	9.6	25.	ug/l		8260B	11/20/14	25
Isopropylbenzene	40.	8.2	25.	ug/l		8260B	11/20/14	25
p-Isopropyltoluene	13.	8.8	25.	ug/l	J	8260B	11/20/14	25
2-Butanone (MEK)	400	98.	250	ug/l		8260B	11/20/14	25
2-Hexanone	U	96.	250	ug/l		8260B	11/20/14	25
Methylene Chloride	U	25.	130	ug/l		8260B	11/20/14	25
4-Methyl-2-pentanone (MIBK)	U	54.	250	ug/l		8260B	11/20/14	25
Methyl tert-butyl ether	5900	9.2	25.	ug/l	E	8260B	11/20/14	25
Methyl tert-butyl ether	5200	92.	250	ug/l	E	8260B	11/20/14	25
Naphthalene	190	25.	130	ug/l		8260B	11/20/14	25
n-Propylbenzene	62.	8.7	25.	ug/l		8260B	11/20/14	25
Styrene	U	7.7	25.	ug/l		8260B	11/20/14	25
1,1,1,2-Tetrachloroethane	U	9.6	25.	ug/l		8260B	11/20/14	25
1,1,2,2-Tetrachloroethane	U	3.2	25.	ug/l		8260B	11/20/14	25
Tetrachloroethene	U	9.3	25.	ug/l		8260B	11/20/14	25
Toluene	180	20.	130	ug/l		8260B	11/20/14	25
1,1,1-Trichloroethane	U	8.0	25.	ug/l		8260B	11/20/14	25
1,1,2-Trichloroethane	U	9.6	25.	ug/l		8260B	11/20/14	25
Trichloroethene	U	10.	25.	ug/l		8260B	11/20/14	25
1,2,4-Trimethylbenzene	410	9.3	25.	ug/l		8260B	11/20/14	25
1,3,5-Trimethylbenzene	110	9.7	25.	ug/l		8260B	11/20/14	25
Vinyl chloride	U	6.5	25.	ug/l		8260B	11/20/14	25
o-Xylene	320	8.5	25.	ug/l		8260B	11/20/14	25
m&p-Xylene	900	18.	50.	ug/l		8260B	11/20/14	25
Xylenes, Total	1200	26.	75.	ug/l		8260B	11/20/14	25
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	93.4			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	98.5			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	12000	44.	200	ug/l		8015	11/19/14	2
C28-C40 Oil Range	500	24.	200	ug/l		8015	11/19/14	2
Surrogate Recovery								
o-Terphenyl	72.5			% Rec.		8015	11/19/14	2

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : KWB-2R
Collected By : SU/HMI Team
Collection Date : 11/13/14 08:30

ESC Sample # : L733743-140

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	160000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	1200	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	1200000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	2600000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	5.3	0.25	2.0	ug/l		6020	12/01/14	1
Barium	89.	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	330000	230	5000	ug/l		6020	12/01/14	5
Chromium	0.60	0.54	1.0	ug/l	J	6020	12/01/14	1
Iron	570	50.	100	ug/l		6020	12/01/14	1
Lead	3.9	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	310	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	1200	37.	1000	ug/l		6020	12/01/14	1
Selenium	0.48	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	200000	550	5000	ug/l		6020	12/01/14	5
Volatile Organics								
Acetone	U	250	1300	ug/l	J3	8260B	11/20/14	25
Benzene	4400	8.3	25.	ug/l		8260B	11/20/14	25
Bromodichloromethane	U	9.5	25.	ug/l		8260B	11/20/14	25
Bromoform	U	12.	25.	ug/l		8260B	11/20/14	25
Bromomethane	U	22.	130	ug/l		8260B	11/20/14	25
n-Butylbenzene	10.	9.0	25.	ug/l	J	8260B	11/20/14	25
sec-Butylbenzene	12.	9.1	25.	ug/l	J	8260B	11/20/14	25
Carbon disulfide	U	6.9	25.	ug/l		8260B	11/20/14	25
Carbon tetrachloride	U	9.5	25.	ug/l		8260B	11/20/14	25
Chlorobenzene	U	8.7	25.	ug/l		8260B	11/20/14	25
Chlorodibromomethane	U	8.2	25.	ug/l		8260B	11/20/14	25
Chloroethane	U	11.	130	ug/l		8260B	11/20/14	25
Chloroform	U	8.1	130	ug/l		8260B	11/20/14	25
Chloromethane	U	6.9	63.	ug/l		8260B	11/20/14	25
1,2-Dibromoethane	U	9.5	25.	ug/l		8260B	11/20/14	25
1,1-Dichloroethane	U	6.5	25.	ug/l		8260B	11/20/14	25
1,2-Dichloroethane	U	9.0	25.	ug/l		8260B	11/20/14	25
1,1-Dichloroethene	U	10.	25.	ug/l		8260B	11/20/14	25
cis-1,2-Dichloroethene	U	6.5	25.	ug/l		8260B	11/20/14	25
trans-1,2-Dichloroethene	U	9.9	25.	ug/l		8260B	11/20/14	25
1,2-Dichloropropane	U	7.6	25.	ug/l		8260B	11/20/14	25
cis-1,3-Dichloropropene	U	10.	25.	ug/l		8260B	11/20/14	25
trans-1,3-Dichloropropene	U	10.	25.	ug/l		8260B	11/20/14	25

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(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-140

Sample ID : KWB-2R

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 08:30

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Ethylbenzene	2900	9.6	25.	ug/l		8260B	11/20/14	25
Isopropylbenzene	82.	8.2	25.	ug/l		8260B	11/20/14	25
p-Isopropyltoluene	U	8.8	25.	ug/l		8260B	11/20/14	25
2-Butanone (MEK)	U	98.	250	ug/l		8260B	11/20/14	25
2-Hexanone	U	96.	250	ug/l		8260B	11/20/14	25
Methylene Chloride	U	25.	130	ug/l		8260B	11/20/14	25
4-Methyl-2-pentanone (MIBK)	U	54.	250	ug/l		8260B	11/20/14	25
Methyl tert-butyl ether	34.	9.2	25.	ug/l		8260B	11/20/14	25
Naphthalene	510	25.	130	ug/l		8260B	11/20/14	25
n-Propylbenzene	160	8.7	25.	ug/l		8260B	11/20/14	25
Styrene	U	7.7	25.	ug/l		8260B	11/20/14	25
1,1,1,2-Tetrachloroethane	U	9.6	25.	ug/l		8260B	11/20/14	25
1,1,2,2-Tetrachloroethane	U	3.2	25.	ug/l		8260B	11/20/14	25
Tetrachloroethene	U	9.3	25.	ug/l		8260B	11/20/14	25
Toluene	35.	20.	130	ug/l	J	8260B	11/20/14	25
1,1,1-Trichloroethane	U	8.0	25.	ug/l		8260B	11/20/14	25
1,1,2-Trichloroethane	U	9.6	25.	ug/l		8260B	11/20/14	25
Trichloroethene	U	10.	25.	ug/l		8260B	11/20/14	25
1,2,4-Trimethylbenzene	790	9.3	25.	ug/l		8260B	11/20/14	25
1,3,5-Trimethylbenzene	39.	9.7	25.	ug/l		8260B	11/20/14	25
Vinyl chloride	U	6.5	25.	ug/l		8260B	11/20/14	25
o-Xylene	31.	8.5	25.	ug/l		8260B	11/20/14	25
m&p-Xylene	710	18.	50.	ug/l		8260B	11/20/14	25
Xylenes, Total	740	26.	75.	ug/l		8260B	11/20/14	25
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	93.8			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	95.8			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	5500	110	500	ug/l		8015	11/20/14	5
C28-C40 Oil Range	290	59.	500	ug/l	J	8015	11/20/14	5
Surrogate Recovery								
o-Terphenyl	148.			% Rec.		8015	11/20/14	5

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : KWB-5
Collected By : SU/HMI Team
Collection Date : 11/12/14 14:15

ESC Sample # : L733743-141

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	570000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	770	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	12000	77.	5000	ug/l		300.0	11/22/14	1
Nitrate-Nitrite	200	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1500000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	24.	0.25	2.0	ug/l		6020	12/01/14	1
Barium	3700	18	250	ug/l		6020	12/01/14	50
Calcium	270000	230	5000	ug/l		6020	12/01/14	5
Chromium	0.59	0.54	1.0	ug/l	J	6020	12/01/14	1
Iron	5400	50.	100	ug/l		6020	12/01/14	1
Lead	0.42	0.24	2.0	ug/l	J	6020	12/01/14	1
Manganese	2300	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	1000	37.	1000	ug/l		6020	12/01/14	1
Selenium	0.82	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	210000	550	5000	ug/l		6020	12/01/14	5
Volatile Organics								
Acetone	U	100	500	ug/l	J3	8260B	11/20/14	10
Benzene	410	3.3	10.	ug/l		8260B	11/20/14	10
Bromodichloromethane	U	3.8	10.	ug/l		8260B	11/20/14	10
Bromoform	U	4.7	10.	ug/l		8260B	11/20/14	10
Bromomethane	U	8.7	50.	ug/l		8260B	11/20/14	10
n-Butylbenzene	U	3.6	10.	ug/l		8260B	11/20/14	10
sec-Butylbenzene	U	3.6	10.	ug/l		8260B	11/20/14	10
Carbon disulfide	U	2.8	10.	ug/l		8260B	11/20/14	10
Carbon tetrachloride	U	3.8	10.	ug/l		8260B	11/20/14	10
Chlorobenzene	U	3.5	10.	ug/l		8260B	11/20/14	10
Chlorodibromomethane	U	3.3	10.	ug/l		8260B	11/20/14	10
Chloroethane	U	4.5	50.	ug/l		8260B	11/20/14	10
Chloroform	U	3.2	50.	ug/l		8260B	11/20/14	10
Chloromethane	U	2.8	25.	ug/l		8260B	11/20/14	10
1,2-Dibromoethane	U	3.8	10.	ug/l		8260B	11/20/14	10
1,1-Dichloroethane	U	2.6	10.	ug/l		8260B	11/20/14	10
1,2-Dichloroethane	U	3.6	10.	ug/l		8260B	11/20/14	10
1,1-Dichloroethene	U	4.0	10.	ug/l		8260B	11/20/14	10
cis-1,2-Dichloroethene	U	2.6	10.	ug/l		8260B	11/20/14	10
trans-1,2-Dichloroethene	U	4.0	10.	ug/l		8260B	11/20/14	10
1,2-Dichloropropane	U	3.1	10.	ug/l		8260B	11/20/14	10
cis-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/20/14	10
trans-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/20/14	10
Ethylbenzene	9.5	3.8	10.	ug/l	J	8260B	11/20/14	10

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1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-141

Sample ID : KWB-5

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 14:15

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Isopropylbenzene	6.6	3.3	10.	ug/l	J	8260B	11/20/14	10
p-Isopropyltoluene	U	3.5	10.	ug/l		8260B	11/20/14	10
2-Butanone (MEK)	U	39.	100	ug/l		8260B	11/20/14	10
2-Hexanone	U	38.	100	ug/l		8260B	11/20/14	10
Methylene Chloride	U	10.	50.	ug/l		8260B	11/20/14	10
4-Methyl-2-pentanone (MIBK)	U	21.	100	ug/l		8260B	11/20/14	10
Methyl tert-butyl ether	9900	3.7	10.	ug/l	E	8260B	11/20/14	10
Naphthalene	23.	10.	50.	ug/l	J	8260B	11/20/14	10
n-Propylbenzene	11.	3.5	10.	ug/l		8260B	11/20/14	10
Styrene	U	3.1	10.	ug/l		8260B	11/20/14	10
1,1,1,2-Tetrachloroethane	U	3.8	10.	ug/l		8260B	11/20/14	10
1,1,2,2-Tetrachloroethane	U	1.3	10.	ug/l		8260B	11/20/14	10
Tetrachloroethene	U	3.7	10.	ug/l		8260B	11/20/14	10
Toluene	U	7.8	50.	ug/l		8260B	11/20/14	10
1,1,1-Trichloroethane	U	3.2	10.	ug/l		8260B	11/20/14	10
1,1,2-Trichloroethane	U	3.8	10.	ug/l		8260B	11/20/14	10
Trichloroethene	U	4.0	10.	ug/l		8260B	11/20/14	10
1,2,4-Trimethylbenzene	U	3.7	10.	ug/l		8260B	11/20/14	10
1,3,5-Trimethylbenzene	U	3.9	10.	ug/l		8260B	11/20/14	10
Vinyl chloride	U	2.6	10.	ug/l		8260B	11/20/14	10
o-Xylene	U	3.4	10.	ug/l		8260B	11/20/14	10
m&p-Xylene	U	7.2	20.	ug/l		8260B	11/20/14	10
Xylenes, Total	U	11.	30.	ug/l		8260B	11/20/14	10
Surrogate Recovery								
Toluene-d8	106.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	92.1			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	93.3			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	1800	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	290	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	112.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : KWB-6
Collected By : SU/HMI Team
Collection Date : 11/12/14 15:25

ESC Sample # : L733743-142

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	240000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	800	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	330000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	370	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1600000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	9.5	0.25	2.0	ug/l		6020	12/01/14	1
Barium	160	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	260000	230	5000	ug/l		6020	12/01/14	5
Chromium	0.73	0.54	1.0	ug/l	J	6020	12/01/14	1
Iron	770	50.	100	ug/l		6020	12/01/14	1
Lead	1.0	0.24	2.0	ug/l	J	6020	12/01/14	1
Manganese	2200	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	200	37.	1000	ug/l	J	6020	12/01/14	1
Selenium	1.3	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	150000	550	5000	ug/l		6020	12/01/14	5
Volatile Organics								
Acetone	U	100	500	ug/l		8260B	11/20/14	10
Benzene	5100	33.	100	ug/l		8260B	11/21/14	100
Bromodichloromethane	U	3.8	10.	ug/l		8260B	11/20/14	10
Bromoform	U	4.7	10.	ug/l		8260B	11/20/14	10
Bromomethane	U	8.7	50.	ug/l	J4	8260B	11/20/14	10
n-Butylbenzene	U	3.6	10.	ug/l		8260B	11/20/14	10
sec-Butylbenzene	5.6	3.6	10.	ug/l	J	8260B	11/20/14	10
Carbon disulfide	U	2.8	10.	ug/l		8260B	11/20/14	10
Carbon tetrachloride	U	3.8	10.	ug/l		8260B	11/20/14	10
Chlorobenzene	U	3.5	10.	ug/l		8260B	11/20/14	10
Chlorodibromomethane	U	3.3	10.	ug/l		8260B	11/20/14	10
Chloroethane	U	4.5	50.	ug/l		8260B	11/20/14	10
Chloroform	U	3.2	50.	ug/l		8260B	11/20/14	10
Chloromethane	U	2.8	25.	ug/l		8260B	11/20/14	10
1,2-Dibromoethane	U	3.8	10.	ug/l		8260B	11/20/14	10
1,1-Dichloroethane	U	2.6	10.	ug/l		8260B	11/20/14	10
1,2-Dichloroethane	U	3.6	10.	ug/l		8260B	11/20/14	10
1,1-Dichloroethene	U	4.0	10.	ug/l		8260B	11/20/14	10
cis-1,2-Dichloroethene	U	2.6	10.	ug/l		8260B	11/20/14	10
trans-1,2-Dichloroethene	U	4.0	10.	ug/l		8260B	11/20/14	10
1,2-Dichloropropane	U	3.1	10.	ug/l		8260B	11/20/14	10
cis-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/20/14	10
trans-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/20/14	10

U = ND (Not Detected)

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-142

Sample ID : KWB-6

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 15:25

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Ethylbenzene	810	3.8	10.	ug/l		8260B	11/20/14	10
Isopropylbenzene	40.	3.3	10.	ug/l		8260B	11/20/14	10
p-Isopropyltoluene	4.2	3.5	10.	ug/l	J	8260B	11/20/14	10
2-Butanone (MEK)	U	39.	100	ug/l		8260B	11/20/14	10
2-Hexanone	U	38.	100	ug/l		8260B	11/20/14	10
Methylene Chloride	U	10.	50.	ug/l		8260B	11/20/14	10
4-Methyl-2-pentanone (MIBK)	U	21.	100	ug/l		8260B	11/20/14	10
Methyl tert-butyl ether	160	3.7	10.	ug/l		8260B	11/20/14	10
Naphthalene	98.	10.	50.	ug/l		8260B	11/20/14	10
n-Propylbenzene	58.	3.5	10.	ug/l		8260B	11/20/14	10
Styrene	U	3.1	10.	ug/l		8260B	11/20/14	10
1,1,1,2-Tetrachloroethane	U	3.8	10.	ug/l		8260B	11/20/14	10
1,1,2,2-Tetrachloroethane	U	1.3	10.	ug/l		8260B	11/20/14	10
Tetrachloroethene	U	3.7	10.	ug/l		8260B	11/20/14	10
Toluene	530	7.8	50.	ug/l		8260B	11/20/14	10
1,1,1-Trichloroethane	U	3.2	10.	ug/l		8260B	11/20/14	10
1,1,2-Trichloroethane	U	3.8	10.	ug/l		8260B	11/20/14	10
Trichloroethene	U	4.0	10.	ug/l		8260B	11/20/14	10
1,2,4-Trimethylbenzene	260	3.7	10.	ug/l		8260B	11/20/14	10
1,3,5-Trimethylbenzene	47.	3.9	10.	ug/l		8260B	11/20/14	10
Vinyl chloride	U	2.6	10.	ug/l		8260B	11/20/14	10
o-Xylene	200	3.4	10.	ug/l		8260B	11/20/14	10
m&p-Xylene	930	7.2	20.	ug/l		8260B	11/20/14	10
Xylenes, Total	1100	11.	30.	ug/l		8260B	11/20/14	10
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	113.			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	96.4			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	1800	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	140	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	117.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-112

Collected By : SU/HMI Team
Collection Date : 11/12/14 12:45

ESC Sample # : L733743-143

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	230000	520	10000	ug/l		300.0	11/22/14	10
Fluoride	1000	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	5400	77.	5000	ug/l		300.0	11/22/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1200000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	5.0	0.25	2.0	ug/l		6020	12/01/14	1
Barium	7600	36.	500	ug/l		6020	12/01/14	1
Calcium	190000	230	5000	ug/l		6020	12/01/14	5
Chromium	2.1	0.54	1.0	ug/l		6020	12/01/14	1
Iron	5800	50.	100	ug/l		6020	12/01/14	1
Lead	1.3	0.24	2.0	ug/l	J	6020	12/01/14	1
Manganese	310	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	310	37.	1000	ug/l	J	6020	12/01/14	1
Selenium	1.8	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	190000	550	5000	ug/l		6020	12/01/14	5
TPH (GC/FID) Low Fraction	28000	1600	5000	ug/l		8015D/G	11/21/14	50
Surrogate Recovery-% a,a,a-Trifluorotoluene (FID)	97.1			% Rec.		8015D/G	11/21/14	50
Volatile Organics								
Acetone	U	250	1300	ug/l		8260B	11/20/14	25
Benzene	8500	83.	250	ug/l		8260B	11/21/14	250
Bromodichloromethane	U	9.5	25.	ug/l		8260B	11/20/14	25
Bromoform	U	12.	25.	ug/l		8260B	11/20/14	25
Bromomethane	U	22.	130	ug/l	J4	8260B	11/20/14	25
n-Butylbenzene	U	9.0	25.	ug/l		8260B	11/20/14	25
sec-Butylbenzene	9.1	9.1	25.	ug/l	J	8260B	11/20/14	25
Carbon disulfide	U	6.9	25.	ug/l		8260B	11/20/14	25
Carbon tetrachloride	U	9.5	25.	ug/l		8260B	11/20/14	25
Chlorobenzene	U	8.7	25.	ug/l		8260B	11/20/14	25
Chlorodibromomethane	U	8.2	25.	ug/l		8260B	11/20/14	25
Chloroethane	U	11.	130	ug/l		8260B	11/20/14	25
Chloroform	U	8.1	130	ug/l		8260B	11/20/14	25
Chloromethane	U	6.9	63.	ug/l		8260B	11/20/14	25
1,2-Dibromoethane	U	9.5	25.	ug/l		8260B	11/20/14	25
1,1-Dichloroethane	U	6.5	25.	ug/l		8260B	11/20/14	25
1,2-Dichloroethane	U	9.0	25.	ug/l		8260B	11/20/14	25
1,1-Dichloroethene	U	10.	25.	ug/l		8260B	11/20/14	25
cis-1,2-Dichloroethene	U	6.5	25.	ug/l		8260B	11/20/14	25

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(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-143

Sample ID : MW-112

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 12:45

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	9.9	25.	ug/l		8260B	11/20/14	25
1,2-Dichloropropane	U	7.6	25.	ug/l		8260B	11/20/14	25
cis-1,3-Dichloropropene	U	10.	25.	ug/l		8260B	11/20/14	25
trans-1,3-Dichloropropene	U	10.	25.	ug/l		8260B	11/20/14	25
Ethylbenzene	970	9.6	25.	ug/l		8260B	11/20/14	25
Isopropylbenzene	57.	8.2	25.	ug/l		8260B	11/20/14	25
p-Isopropyltoluene	U	8.8	25.	ug/l		8260B	11/20/14	25
2-Butanone (MEK)	U	98.	250	ug/l		8260B	11/20/14	25
2-Hexanone	U	96.	250	ug/l		8260B	11/20/14	25
Methylene Chloride	U	25.	130	ug/l		8260B	11/20/14	25
4-Methyl-2-pentanone (MIBK)	U	54.	250	ug/l		8260B	11/20/14	25
Methyl tert-butyl ether	1000	9.2	25.	ug/l		8260B	11/20/14	25
Naphthalene	200	25.	130	ug/l		8260B	11/20/14	25
n-Propylbenzene	100	8.7	25.	ug/l		8260B	11/20/14	25
Styrene	U	7.7	25.	ug/l		8260B	11/20/14	25
1,1,1,2-Tetrachloroethane	U	9.6	25.	ug/l		8260B	11/20/14	25
1,1,2,2-Tetrachloroethane	U	3.2	25.	ug/l		8260B	11/20/14	25
Tetrachloroethene	U	9.3	25.	ug/l		8260B	11/20/14	25
Toluene	730	20.	130	ug/l		8260B	11/20/14	25
1,1,1-Trichloroethane	U	8.0	25.	ug/l		8260B	11/20/14	25
1,1,2-Trichloroethane	U	9.6	25.	ug/l		8260B	11/20/14	25
Trichloroethene	U	10.	25.	ug/l		8260B	11/20/14	25
1,2,4-Trimethylbenzene	350	9.3	25.	ug/l		8260B	11/20/14	25
1,3,5-Trimethylbenzene	90.	9.7	25.	ug/l		8260B	11/20/14	25
Vinyl chloride	U	6.5	25.	ug/l		8260B	11/20/14	25
o-Xylene	600	8.5	25.	ug/l		8260B	11/20/14	25
m&p-Xylene	1400	18.	50.	ug/l		8260B	11/20/14	25
Xylenes, Total	2000	26.	75.	ug/l		8260B	11/20/14	25
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	112.			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	95.4			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	2200	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	100	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	105.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-144

Sample ID : MW-58

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 09:15

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	140000	520	10000	ug/l		300.0	11/22/14	10
Fluoride	1400	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	160000	770	50000	ug/l		300.0	11/22/14	10
Cyanide	U	1.8	5.0	ug/l		9012B	11/21/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1300000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	7.8	0.25	2.0	ug/l		6020	12/01/14	1
Barium	670	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	340000	230	5000	ug/l		6020	12/01/14	5
Chromium	0.83	0.54	1.0	ug/l	J	6020	12/01/14	1
Iron	660	50.	100	ug/l		6020	12/01/14	1
Lead	5.8	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	94.	0.25	5.0	ug/l		6020	12/01/14	1
Nickel	1.5	0.35	2.0	ug/l	J	6020	12/01/14	1
Potassium	550	37.	1000	ug/l	J	6020	12/01/14	1
Selenium	0.40	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	66000	110	1000	ug/l		6020	12/01/14	1
Vanadium	4.3	0.18	5.0	ug/l	J	6020	12/01/14	1
Mercury	U	0.049	0.20	ug/l		7470A	11/18/14	1
Volatile Organics								
Acetone	U	250	1300	ug/l		8260B	11/20/14	25
Benzene	7400	83.	250	ug/l		8260B	11/21/14	250
Bromodichloromethane	U	9.5	25.	ug/l		8260B	11/20/14	25
Bromoform	U	12.	25.	ug/l		8260B	11/20/14	25
Bromomethane	U	22.	130	ug/l	J4	8260B	11/20/14	25
n-Butylbenzene	U	9.0	25.	ug/l		8260B	11/20/14	25
sec-Butylbenzene	9.7	9.1	25.	ug/l	J	8260B	11/20/14	25
Carbon disulfide	U	6.9	25.	ug/l		8260B	11/20/14	25
Carbon tetrachloride	U	9.5	25.	ug/l		8260B	11/20/14	25
Chlorobenzene	U	8.7	25.	ug/l		8260B	11/20/14	25
Chlorodibromomethane	U	8.2	25.	ug/l		8260B	11/20/14	25
Chloroethane	U	11.	130	ug/l		8260B	11/20/14	25
Chloroform	U	8.1	130	ug/l		8260B	11/20/14	25
Chloromethane	U	6.9	63.	ug/l		8260B	11/20/14	25
1,2-Dibromoethane	U	9.5	25.	ug/l		8260B	11/20/14	25
1,1-Dichloroethane	U	6.5	25.	ug/l		8260B	11/20/14	25
1,2-Dichloroethane	U	9.0	25.	ug/l		8260B	11/20/14	25

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-144

Sample ID : MW-58

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 09:15

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,1-Dichloroethene	U	10.	25.	ug/l		8260B	11/20/14	25
cis-1,2-Dichloroethene	U	6.5	25.	ug/l		8260B	11/20/14	25
trans-1,2-Dichloroethene	U	9.9	25.	ug/l		8260B	11/20/14	25
1,2-Dichloropropane	U	7.6	25.	ug/l		8260B	11/20/14	25
cis-1,3-Dichloropropene	U	10.	25.	ug/l		8260B	11/20/14	25
trans-1,3-Dichloropropene	U	10.	25.	ug/l		8260B	11/20/14	25
Ethylbenzene	2400	9.6	25.	ug/l		8260B	11/20/14	25
Isopropylbenzene	66.	8.2	25.	ug/l		8260B	11/20/14	25
p-Isopropyltoluene	U	8.8	25.	ug/l		8260B	11/20/14	25
2-Butanone (MEK)	U	98.	250	ug/l		8260B	11/20/14	25
2-Hexanone	U	96.	250	ug/l		8260B	11/20/14	25
Methylene Chloride	U	25.	130	ug/l		8260B	11/20/14	25
4-Methyl-2-pentanone (MIBK)	U	54.	250	ug/l		8260B	11/20/14	25
Methyl tert-butyl ether	U	9.2	25.	ug/l		8260B	11/20/14	25
Naphthalene	480	25.	130	ug/l		8260B	11/20/14	25
n-Propylbenzene	100	8.7	25.	ug/l		8260B	11/20/14	25
Styrene	U	7.7	25.	ug/l		8260B	11/20/14	25
1,1,1,2-Tetrachloroethane	U	9.6	25.	ug/l		8260B	11/20/14	25
1,1,2,2-Tetrachloroethane	U	3.2	25.	ug/l		8260B	11/20/14	25
Tetrachloroethene	U	9.3	25.	ug/l		8260B	11/20/14	25
Toluene	U	20.	130	ug/l		8260B	11/20/14	25
1,1,1-Trichloroethane	U	8.0	25.	ug/l		8260B	11/20/14	25
1,1,2-Trichloroethane	U	9.6	25.	ug/l		8260B	11/20/14	25
Trichloroethene	U	10.	25.	ug/l		8260B	11/20/14	25
1,2,4-Trimethylbenzene	860	9.3	25.	ug/l		8260B	11/20/14	25
1,3,5-Trimethylbenzene	98.	9.7	25.	ug/l		8260B	11/20/14	25
Vinyl chloride	U	6.5	25.	ug/l		8260B	11/20/14	25
o-Xylene	76.	8.5	25.	ug/l		8260B	11/20/14	25
m&p-Xylene	1600	18.	50.	ug/l		8260B	11/20/14	25
Xylenes, Total	1600	26.	75.	ug/l		8260B	11/20/14	25
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	111.			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	91.9			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	7800	110	500	ug/l		8015	11/20/14	5
C28-C40 Oil Range	1000	59.	500	ug/l		8015	11/20/14	5
Surrogate Recovery								
o-Terphenyl	81.2			% Rec.		8015	11/20/14	5

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-105
Collected By : SU/HMI Team
Collection Date : 11/13/14 09:05

ESC Sample # : L733743-145

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	37000	52.	1000	ug/l		300.0	11/23/14	1
Fluoride	960	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	1300000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	2400000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	11.	0.25	2.0	ug/l		6020	12/01/14	1
Barium	120	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	660000	460	10000	ug/l		6020	12/01/14	10
Chromium	2.7	0.54	1.0	ug/l		6020	12/01/14	1
Iron	870	50.	100	ug/l		6020	12/01/14	1
Lead	2.5	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	270	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	7000	37.	1000	ug/l		6020	12/01/14	1
Selenium	12.	0.38	2.0	ug/l		6020	12/01/14	1
Sodium	29000	110	1000	ug/l		6020	12/01/14	1
TPH (GC/FID) Low Fraction	14000	3100	10000	ug/l		8015D/G	11/21/14	100
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.6			% Rec.		8015D/G	11/21/14	100
Volatile Organics								
Acetone	U	2500	13000	ug/l		8260B	11/20/14	250
Benzene	3400	83.	250	ug/l		8260B	11/20/14	250
Bromodichloromethane	U	95.	250	ug/l		8260B	11/20/14	250
Bromoform	U	120	250	ug/l		8260B	11/20/14	250
Bromomethane	U	220	1300	ug/l	J4	8260B	11/20/14	250
n-Butylbenzene	U	90.	250	ug/l		8260B	11/20/14	250
sec-Butylbenzene	U	91.	250	ug/l		8260B	11/20/14	250
Carbon disulfide	U	69.	250	ug/l		8260B	11/20/14	250
Carbon tetrachloride	U	95.	250	ug/l		8260B	11/20/14	250
Chlorobenzene	U	87.	250	ug/l		8260B	11/20/14	250
Chlorodibromomethane	U	82.	250	ug/l		8260B	11/20/14	250
Chloroethane	U	110	1300	ug/l		8260B	11/20/14	250
Chloroform	U	81.	1300	ug/l		8260B	11/20/14	250
Chloromethane	U	69.	630	ug/l		8260B	11/20/14	250
1,2-Dibromoethane	U	95.	250	ug/l		8260B	11/20/14	250
1,1-Dichloroethane	U	65.	250	ug/l		8260B	11/20/14	250
1,2-Dichloroethane	U	90.	250	ug/l		8260B	11/20/14	250
1,1-Dichloroethene	U	100	250	ug/l		8260B	11/20/14	250
cis-1,2-Dichloroethene	U	65.	250	ug/l		8260B	11/20/14	250

U = ND (Not Detected)

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-105
Collected By : SU/HMI Team
Collection Date : 11/13/14 09:05

ESC Sample # : L733743-145

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	99.	250	ug/l		8260B	11/20/14	250
1,2-Dichloropropane	U	76.	250	ug/l		8260B	11/20/14	250
cis-1,3-Dichloropropene	U	100	250	ug/l		8260B	11/20/14	250
trans-1,3-Dichloropropene	U	100	250	ug/l		8260B	11/20/14	250
Ethylbenzene	580	96.	250	ug/l		8260B	11/20/14	250
Isopropylbenzene	U	82.	250	ug/l		8260B	11/20/14	250
p-Isopropyltoluene	U	88.	250	ug/l		8260B	11/20/14	250
2-Butanone (MEK)	U	980	2500	ug/l		8260B	11/20/14	250
2-Hexanone	U	960	2500	ug/l		8260B	11/20/14	250
Methylene Chloride	U	250	1300	ug/l		8260B	11/20/14	250
4-Methyl-2-pentanone (MIBK)	U	540	2500	ug/l		8260B	11/20/14	250
Methyl tert-butyl ether	U	92.	250	ug/l		8260B	11/20/14	250
Naphthalene	U	250	1300	ug/l		8260B	11/20/14	250
n-Propylbenzene	U	87.	250	ug/l		8260B	11/20/14	250
Styrene	U	77.	250	ug/l		8260B	11/20/14	250
1,1,1,2-Tetrachloroethane	U	96.	250	ug/l		8260B	11/20/14	250
1,1,2,2-Tetrachloroethane	U	32.	250	ug/l		8260B	11/20/14	250
Tetrachloroethene	U	93.	250	ug/l		8260B	11/20/14	250
Toluene	U	200	1300	ug/l		8260B	11/20/14	250
1,1,1-Trichloroethane	U	80.	250	ug/l		8260B	11/20/14	250
1,1,2-Trichloroethane	U	96.	250	ug/l		8260B	11/20/14	250
Trichloroethene	U	100	250	ug/l		8260B	11/20/14	250
1,2,4-Trimethylbenzene	110	93.	250	ug/l	J	8260B	11/20/14	250
1,3,5-Trimethylbenzene	U	97.	250	ug/l		8260B	11/20/14	250
Vinyl chloride	U	65.	250	ug/l		8260B	11/20/14	250
o-Xylene	U	85.	250	ug/l		8260B	11/20/14	250
m&p-Xylene	230	180	500	ug/l	J	8260B	11/20/14	250
Xylenes, Total	U	260	750	ug/l		8260B	11/20/14	250
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	11/20/14	1
Dibromofluoromethane	100.			% Rec.		8260B	11/20/14	1
4-Bromofluorobenzene	97.6			% Rec.		8260B	11/20/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	7800	110	500	ug/l		8015	11/20/14	5
C28-C40 Oil Range	750	59.	500	ug/l		8015	11/20/14	5
Surrogate Recovery								
o-Terphenyl	104.			% Rec.		8015	11/20/14	5

U = ND (Not Detected)

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-129
Collected By : SU/HMI Team
Collection Date : 11/12/14 09:25

ESC Sample # : L733743-146

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	320000	520	10000	ug/l		300.0	11/22/14	10
Fluoride	980	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	52000	77.	5000	ug/l		300.0	11/23/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1300000	2800	10000	ug/l		2540 C-	11/18/14	1
Arsenic	27.	0.25	2.0	ug/l		6020	12/01/14	1
Barium	660	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	270000	230	5000	ug/l		6020	12/01/14	5
Chromium	4.5	0.54	1.0	ug/l		6020	12/01/14	1
Iron	7800	50.	100	ug/l		6020	12/01/14	1
Lead	4.4	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	1200	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	800	37.	1000	ug/l	J	6020	12/01/14	1
Selenium	3.2	0.38	2.0	ug/l		6020	12/01/14	1
Sodium	210000	550	5000	ug/l		6020	12/01/14	5
TPH (GC/FID) Low Fraction	4600	630	2000	ug/l		8015D/G	11/21/14	20
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.4			% Rec.		8015D/G	11/21/14	20
Volatile Organics								
Acetone	U	100	500	ug/l		8260B	11/21/14	10
Benzene	84.	3.3	10.	ug/l		8260B	11/21/14	10
Bromodichloromethane	U	3.8	10.	ug/l		8260B	11/21/14	10
Bromoform	U	4.7	10.	ug/l		8260B	11/21/14	10
Bromomethane	U	8.7	50.	ug/l		8260B	11/21/14	10
n-Butylbenzene	U	3.6	10.	ug/l		8260B	11/21/14	10
sec-Butylbenzene	U	3.6	10.	ug/l		8260B	11/21/14	10
Carbon disulfide	U	2.8	10.	ug/l		8260B	11/21/14	10
Carbon tetrachloride	U	3.8	10.	ug/l		8260B	11/21/14	10
Chlorobenzene	U	3.5	10.	ug/l		8260B	11/21/14	10
Chlorodibromomethane	U	3.3	10.	ug/l		8260B	11/21/14	10
Chloroethane	U	4.5	50.	ug/l		8260B	11/21/14	10
Chloroform	U	3.2	50.	ug/l		8260B	11/21/14	10
Chloromethane	U	2.8	25.	ug/l		8260B	11/21/14	10
1,2-Dibromoethane	U	3.8	10.	ug/l		8260B	11/21/14	10
1,1-Dichloroethane	U	2.6	10.	ug/l		8260B	11/21/14	10
1,2-Dichloroethane	U	3.6	10.	ug/l		8260B	11/21/14	10
1,1-Dichloroethene	U	4.0	10.	ug/l		8260B	11/21/14	10
cis-1,2-Dichloroethene	U	2.6	10.	ug/l		8260B	11/21/14	10

U = ND (Not Detected)

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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Est. 1970

REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-146

Sample ID : MW-129

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 09:25

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	4.0	10.	ug/l		8260B	11/21/14	10
1,2-Dichloropropane	U	3.1	10.	ug/l		8260B	11/21/14	10
cis-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/21/14	10
trans-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/21/14	10
Ethylbenzene	25.	3.8	10.	ug/l		8260B	11/21/14	10
Isopropylbenzene	4.4	3.3	10.	ug/l	J	8260B	11/21/14	10
p-Isopropyltoluene	U	3.5	10.	ug/l		8260B	11/21/14	10
2-Butanone (MEK)	U	39.	100	ug/l	J4J3	8260B	11/21/14	10
2-Hexanone	U	38.	100	ug/l		8260B	11/21/14	10
Methylene Chloride	U	10.	50.	ug/l		8260B	11/21/14	10
4-Methyl-2-pentanone (MIBK)	U	21.	100	ug/l		8260B	11/21/14	10
Methyl tert-butyl ether	5400	3.7	10.	ug/l	E	8260B	11/21/14	10
Naphthalene	U	10.	50.	ug/l		8260B	11/21/14	10
n-Propylbenzene	4.8	3.5	10.	ug/l	J	8260B	11/21/14	10
Styrene	U	3.1	10.	ug/l		8260B	11/21/14	10
1,1,1,2-Tetrachloroethane	U	3.8	10.	ug/l		8260B	11/21/14	10
1,1,2,2-Tetrachloroethane	U	1.3	10.	ug/l		8260B	11/21/14	10
Tetrachloroethene	U	3.7	10.	ug/l		8260B	11/21/14	10
Toluene	71.	7.8	50.	ug/l		8260B	11/21/14	10
1,1,1-Trichloroethane	U	3.2	10.	ug/l		8260B	11/21/14	10
1,1,2-Trichloroethane	U	3.8	10.	ug/l		8260B	11/21/14	10
Trichloroethene	U	4.0	10.	ug/l		8260B	11/21/14	10
1,2,4-Trimethylbenzene	14.	3.7	10.	ug/l		8260B	11/21/14	10
1,3,5-Trimethylbenzene	4.3	3.9	10.	ug/l	J	8260B	11/21/14	10
Vinyl chloride	U	2.6	10.	ug/l		8260B	11/21/14	10
o-Xylene	16.	3.4	10.	ug/l		8260B	11/21/14	10
m&p-Xylene	43.	7.2	20.	ug/l		8260B	11/21/14	10
Xylenes, Total	59.	11.	30.	ug/l		8260B	11/21/14	10
Surrogate Recovery								
Toluene-d8	98.9			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	96.5			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	101.			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	2700	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	320	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	118.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)

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Mt. Juliet, TN 37122
(615) 758-5858
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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-147

Sample ID : MW-133

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 10:30

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	170000	520	10000	ug/l		300.0	11/22/14	10
Fluoride	1100	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	140000	770	50000	ug/l		300.0	11/22/14	10
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1300000	2800	10000	ug/l		2540 C-	11/19/14	1
Arsenic	19.	0.25	2.0	ug/l		6020	12/01/14	1
Barium	130	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	200000	230	5000	ug/l	V	6020	12/01/14	5
Chromium	0.60	0.54	1.0	ug/l	J	6020	12/01/14	1
Iron	3500	50.	100	ug/l		6020	12/01/14	1
Lead	0.80	0.24	2.0	ug/l	J	6020	12/01/14	1
Manganese	380	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	460	37.	1000	ug/l	J	6020	12/01/14	1
Selenium	U	0.38	2.0	ug/l		6020	12/01/14	1
Sodium	140000	550	5000	ug/l	V	6020	12/01/14	5
TPH (GC/FID) Low Fraction	9400	1600	5000	ug/l		8015D/G	11/21/14	50
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.0			% Rec.		8015D/G	11/21/14	50
Volatile Organics								
Acetone	U	1000	5000	ug/l		8260B	11/21/14	100
Benzene	620	33.	100	ug/l		8260B	11/21/14	100
Bromodichloromethane	U	38.	100	ug/l		8260B	11/21/14	100
Bromoform	U	47.	100	ug/l		8260B	11/21/14	100
Bromomethane	U	87.	500	ug/l		8260B	11/21/14	100
n-Butylbenzene	U	36.	100	ug/l		8260B	11/21/14	100
sec-Butylbenzene	U	36.	100	ug/l		8260B	11/21/14	100
Carbon disulfide	U	28.	100	ug/l		8260B	11/21/14	100
Carbon tetrachloride	U	38.	100	ug/l		8260B	11/21/14	100
Chlorobenzene	U	35.	100	ug/l		8260B	11/21/14	100
Chlorodibromomethane	U	33.	100	ug/l		8260B	11/21/14	100
Chloroethane	U	45.	500	ug/l		8260B	11/21/14	100
Chloroform	U	32.	500	ug/l		8260B	11/21/14	100
Chloromethane	U	28.	250	ug/l		8260B	11/21/14	100
1,2-Dibromoethane	U	38.	100	ug/l		8260B	11/21/14	100
1,1-Dichloroethane	U	26.	100	ug/l		8260B	11/21/14	100
1,2-Dichloroethane	U	36.	100	ug/l		8260B	11/21/14	100
1,1-Dichloroethene	U	40.	100	ug/l		8260B	11/21/14	100
cis-1,2-Dichloroethene	U	26.	100	ug/l		8260B	11/21/14	100

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-147

Sample ID : MW-133

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/12/14 10:30

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	40.	100	ug/l		8260B	11/21/14	100
1,2-Dichloropropane	U	31.	100	ug/l		8260B	11/21/14	100
cis-1,3-Dichloropropene	U	42.	100	ug/l		8260B	11/21/14	100
trans-1,3-Dichloropropene	U	42.	100	ug/l		8260B	11/21/14	100
Ethylbenzene	300	38.	100	ug/l		8260B	11/21/14	100
Isopropylbenzene	57.	33.	100	ug/l	J	8260B	11/21/14	100
p-Isopropyltoluene	U	35.	100	ug/l		8260B	11/21/14	100
2-Butanone (MEK)	U	390	1000	ug/l	J4J3	8260B	11/21/14	100
2-Hexanone	U	380	1000	ug/l		8260B	11/21/14	100
Methylene Chloride	U	100	500	ug/l		8260B	11/21/14	100
4-Methyl-2-pentanone (MIBK)	U	210	1000	ug/l		8260B	11/21/14	100
Methyl tert-butyl ether	5600	37.	100	ug/l		8260B	11/21/14	100
Naphthalene	U	100	500	ug/l		8260B	11/21/14	100
n-Propylbenzene	84.	35.	100	ug/l	J	8260B	11/21/14	100
Styrene	U	31.	100	ug/l		8260B	11/21/14	100
1,1,1,2-Tetrachloroethane	U	38.	100	ug/l		8260B	11/21/14	100
1,1,2,2-Tetrachloroethane	U	13.	100	ug/l		8260B	11/21/14	100
Tetrachloroethene	U	37.	100	ug/l		8260B	11/21/14	100
Toluene	100	78.	500	ug/l	J	8260B	11/21/14	100
1,1,1-Trichloroethane	U	32.	100	ug/l		8260B	11/21/14	100
1,1,2-Trichloroethane	U	38.	100	ug/l		8260B	11/21/14	100
Trichloroethene	U	40.	100	ug/l		8260B	11/21/14	100
1,2,4-Trimethylbenzene	280	37.	100	ug/l		8260B	11/21/14	100
1,3,5-Trimethylbenzene	53.	39.	100	ug/l	J	8260B	11/21/14	100
Vinyl chloride	U	26.	100	ug/l		8260B	11/21/14	100
o-Xylene	38.	34.	100	ug/l	J	8260B	11/21/14	100
m&p-Xylene	180	72.	200	ug/l	J	8260B	11/21/14	100
Xylenes, Total	220	110	300	ug/l	J	8260B	11/21/14	100
Surrogate Recovery								
Toluene-d8	99.8			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	98.8			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	99.4			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	2800	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	250	12.	100	ug/l		8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	118.			% Rec.		8015	11/19/14	1

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-148

Sample ID : MW-67

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 16:30

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	170000	520	10000	ug/l		300.0	11/22/14	10
Fluoride	610	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	380000	770	50000	ug/l		300.0	11/22/14	10
Cyanide	U	1.8	5.0	ug/l		9012B	11/21/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1600000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	1.8	0.25	2.0	ug/l	J	6020	12/01/14	1
Barium	120	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	240000	230	5000	ug/l		6020	12/01/14	5
Chromium	0.74	0.54	1.0	ug/l	J	6020	12/01/14	1
Iron	U	50.	100	ug/l		6020	12/01/14	1
Lead	0.94	0.24	2.0	ug/l	J	6020	12/01/14	1
Manganese	130	0.25	5.0	ug/l		6020	12/01/14	1
Nickel	3.3	0.35	2.0	ug/l		6020	12/01/14	1
Potassium	590	37.	1000	ug/l	J	6020	12/01/14	1
Selenium	14.	0.38	2.0	ug/l		6020	12/01/14	1
Sodium	160000	550	5000	ug/l		6020	12/01/14	5
Vanadium	0.36	0.18	5.0	ug/l	J	6020	12/01/14	1
Mercury	U	0.049	0.20	ug/l		7470A	11/18/14	1
TPH (GC/FID) Low Fraction	810	31.	100	ug/l		8015D/G	11/22/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	92.1			% Rec.		8015D/G	11/22/14	1
Volatile Organics								
Acetone	U	50.	250	ug/l	J4	8260B	11/23/14	5
Benzene	140	1.6	5.0	ug/l		8260B	11/23/14	5
Bromodichloromethane	U	1.9	5.0	ug/l		8260B	11/23/14	5
Bromoform	U	2.3	5.0	ug/l		8260B	11/23/14	5
Bromomethane	U	4.3	25.	ug/l		8260B	11/23/14	5
n-Butylbenzene	2.9	1.8	5.0	ug/l	J	8260B	11/23/14	5
sec-Butylbenzene	7.8	1.8	5.0	ug/l		8260B	11/23/14	5
Carbon disulfide	2.4	1.4	5.0	ug/l	J	8260B	11/23/14	5
Carbon tetrachloride	U	1.9	5.0	ug/l		8260B	11/23/14	5
Chlorobenzene	U	1.7	5.0	ug/l		8260B	11/23/14	5
Chlorodibromomethane	U	1.6	5.0	ug/l		8260B	11/23/14	5
Chloroethane	U	2.3	25.	ug/l		8260B	11/23/14	5
Chloroform	U	1.6	25.	ug/l		8260B	11/23/14	5

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-148

Sample ID : MW-67

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 16:30

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloromethane	U	1.4	13.	ug/l		8260B	11/23/14	5
1,2-Dibromoethane	U	1.9	5.0	ug/l		8260B	11/23/14	5
1,1-Dichloroethane	U	1.3	5.0	ug/l		8260B	11/23/14	5
1,2-Dichloroethane	U	1.8	5.0	ug/l		8260B	11/23/14	5
1,1-Dichloroethene	U	2.0	5.0	ug/l		8260B	11/23/14	5
cis-1,2-Dichloroethene	2.2	1.3	5.0	ug/l	J	8260B	11/23/14	5
trans-1,2-Dichloroethene	U	2.0	5.0	ug/l		8260B	11/23/14	5
1,2-Dichloropropane	U	1.5	5.0	ug/l		8260B	11/23/14	5
cis-1,3-Dichloropropene	U	2.1	5.0	ug/l		8260B	11/23/14	5
trans-1,3-Dichloropropene	U	2.1	5.0	ug/l		8260B	11/23/14	5
Ethylbenzene	5.0	1.9	5.0	ug/l		8260B	11/23/14	5
Isopropylbenzene	27.	1.6	5.0	ug/l		8260B	11/23/14	5
p-Isopropyltoluene	U	1.8	5.0	ug/l		8260B	11/23/14	5
2-Butanone (MEK)	U	20.	50.	ug/l	J4	8260B	11/23/14	5
2-Hexanone	U	19.	50.	ug/l		8260B	11/23/14	5
Methylene Chloride	U	5.0	25.	ug/l		8260B	11/23/14	5
4-Methyl-2-pentanone (MIBK)	U	11.	50.	ug/l		8260B	11/23/14	5
Methyl tert-butyl ether	460	1.8	5.0	ug/l		8260B	11/23/14	5
Naphthalene	5.3	5.0	25.	ug/l	J	8260B	11/23/14	5
n-Propylbenzene	19.	1.7	5.0	ug/l		8260B	11/23/14	5
Styrene	U	1.5	5.0	ug/l		8260B	11/23/14	5
1,1,1,2-Tetrachloroethane	U	1.9	5.0	ug/l		8260B	11/23/14	5
1,1,2,2-Tetrachloroethane	U	0.65	5.0	ug/l		8260B	11/23/14	5
Tetrachloroethene	U	1.9	5.0	ug/l		8260B	11/23/14	5
Toluene	U	3.9	25.	ug/l		8260B	11/23/14	5
1,1,1-Trichloroethane	U	1.6	5.0	ug/l		8260B	11/23/14	5
1,1,2-Trichloroethane	U	1.9	5.0	ug/l		8260B	11/23/14	5
Trichloroethene	U	2.0	5.0	ug/l		8260B	11/23/14	5
1,2,4-Trimethylbenzene	5.0	1.9	5.0	ug/l	J	8260B	11/23/14	5
1,3,5-Trimethylbenzene	U	1.9	5.0	ug/l		8260B	11/23/14	5
Vinyl chloride	U	1.3	5.0	ug/l		8260B	11/23/14	5
o-Xylene	U	1.7	5.0	ug/l		8260B	11/23/14	5
m&p-Xylene	8.4	3.6	10.	ug/l	J	8260B	11/23/14	5
Xylenes, Total	8.4	5.3	15.	ug/l	J	8260B	11/23/14	5
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	11/23/14	1
Dibromofluoromethane	103.			% Rec.		8260B	11/23/14	1
4-Bromofluorobenzene	95.3			% Rec.		8260B	11/23/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	4200	110	500	ug/l		8015	11/20/14	5
C28-C40 Oil Range	820	59.	500	ug/l		8015	11/20/14	5
Surrogate Recovery								

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1-800-767-5859
Fax (615) 758-5859
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Est. 1970

REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : MW-67
Collected By : SU/HMI Team
Collection Date : 11/13/14 16:30

ESC Sample # : L733743-148
Site ID : REST
Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
o-Terphenyl	104.			% Rec.		8015	11/20/14	5

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RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
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1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : MW-91

Collected By : SU/HMI Team
Collection Date : 11/13/14 13:20

ESC Sample # : L733743-149

Site ID : REST

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	36000	52.	1000	ug/l		300.0	11/23/14	1
Fluoride	1300	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	830000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	2000000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	4.7	0.25	2.0	ug/l		6020	12/01/14	1
Barium	94.	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	460000	230	5000	ug/l		6020	12/01/14	5
Chromium	0.99	0.54	1.0	ug/l	J	6020	12/01/14	1
Iron	U	50.	100	ug/l		6020	12/01/14	1
Lead	1.3	0.24	2.0	ug/l	J	6020	12/01/14	1
Manganese	26.	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	1000	37.	1000	ug/l		6020	12/01/14	1
Selenium	9.8	0.38	2.0	ug/l		6020	12/01/14	1
Sodium	37000	110	1000	ug/l		6020	12/01/14	1
TPH (GC/FID) Low Fraction	7900	310	1000	ug/l		8015D/G	11/22/14	10
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	91.1			% Rec.		8015D/G	11/22/14	1
Volatile Organics								
Acetone	U	2500	13000	ug/l		8260B	11/21/14	250
Benzene	2500	83.	250	ug/l		8260B	11/21/14	250
Bromodichloromethane	U	95.	250	ug/l		8260B	11/21/14	250
Bromoform	U	120	250	ug/l		8260B	11/21/14	250
Bromomethane	U	220	1300	ug/l		8260B	11/21/14	250
n-Butylbenzene	U	90.	250	ug/l		8260B	11/21/14	250
sec-Butylbenzene	U	91.	250	ug/l		8260B	11/21/14	250
Carbon disulfide	U	69.	250	ug/l		8260B	11/21/14	250
Carbon tetrachloride	U	95.	250	ug/l		8260B	11/21/14	250
Chlorobenzene	U	87.	250	ug/l		8260B	11/21/14	250
Chlorodibromomethane	U	82.	250	ug/l		8260B	11/21/14	250
Chloroethane	U	110	1300	ug/l		8260B	11/21/14	250
Chloroform	U	81.	1300	ug/l		8260B	11/21/14	250
Chloromethane	U	69.	630	ug/l		8260B	11/21/14	250
1,2-Dibromoethane	U	95.	250	ug/l		8260B	11/21/14	250
1,1-Dichloroethane	U	65.	250	ug/l		8260B	11/21/14	250
1,2-Dichloroethane	U	90.	250	ug/l		8260B	11/21/14	250
1,1-Dichloroethene	U	100	250	ug/l		8260B	11/21/14	250
cis-1,2-Dichloroethene	U	65.	250	ug/l		8260B	11/21/14	250

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REPORT OF ANALYSIS

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Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-149

Sample ID : MW-91

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 13:20

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	99.	250	ug/l		8260B	11/21/14	250
1,2-Dichloropropane	U	76.	250	ug/l		8260B	11/21/14	250
cis-1,3-Dichloropropene	U	100	250	ug/l		8260B	11/21/14	250
trans-1,3-Dichloropropene	U	100	250	ug/l		8260B	11/21/14	250
Ethylbenzene	170	96.	250	ug/l	J	8260B	11/21/14	250
Isopropylbenzene	100	82.	250	ug/l	J	8260B	11/21/14	250
p-Isopropyltoluene	U	88.	250	ug/l		8260B	11/21/14	250
2-Butanone (MEK)	U	980	2500	ug/l	J4J3	8260B	11/21/14	250
2-Hexanone	U	960	2500	ug/l		8260B	11/21/14	250
Methylene Chloride	U	250	1300	ug/l		8260B	11/21/14	250
4-Methyl-2-pentanone (MIBK)	U	540	2500	ug/l		8260B	11/21/14	250
Methyl tert-butyl ether	U	92.	250	ug/l		8260B	11/21/14	250
Naphthalene	U	250	1300	ug/l		8260B	11/21/14	250
n-Propylbenzene	110	87.	250	ug/l	J	8260B	11/21/14	250
Styrene	U	77.	250	ug/l		8260B	11/21/14	250
1,1,1,2-Tetrachloroethane	U	96.	250	ug/l		8260B	11/21/14	250
1,1,2,2-Tetrachloroethane	U	32.	250	ug/l		8260B	11/21/14	250
Tetrachloroethene	U	93.	250	ug/l		8260B	11/21/14	250
Toluene	920	200	1300	ug/l	J	8260B	11/21/14	250
1,1,1-Trichloroethane	U	80.	250	ug/l		8260B	11/21/14	250
1,1,2-Trichloroethane	U	96.	250	ug/l		8260B	11/21/14	250
Trichloroethene	U	100	250	ug/l		8260B	11/21/14	250
1,2,4-Trimethylbenzene	180	93.	250	ug/l	J	8260B	11/21/14	250
1,3,5-Trimethylbenzene	U	97.	250	ug/l		8260B	11/21/14	250
Vinyl chloride	U	65.	250	ug/l		8260B	11/21/14	250
o-Xylene	U	85.	250	ug/l		8260B	11/21/14	250
m&p-Xylene	540	180	500	ug/l		8260B	11/21/14	250
Xylenes, Total	540	260	750	ug/l	J	8260B	11/21/14	250
Surrogate Recovery								
Toluene-d8	99.0			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	97.8			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	102.			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	11000	110	500	ug/l		8015	11/20/14	5
C28-C40 Oil Range	1800	59.	500	ug/l		8015	11/20/14	5
Surrogate Recovery								
o-Terphenyl	96.7			% Rec.		8015	11/20/14	5

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-150

Sample ID : MW-94

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 16:10

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	230000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	590	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	240000	770	50000	ug/l		300.0	11/24/14	10
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	2600000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	17.	0.25	2.0	ug/l		6020	12/01/14	1
Barium	780	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	190000	230	5000	ug/l		6020	12/01/14	5
Chromium	1.4	0.54	1.0	ug/l		6020	12/01/14	1
Iron	81.	50.	100	ug/l	J	6020	12/01/14	1
Lead	U	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	6.5	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	580	37.	1000	ug/l	J	6020	12/01/14	1
Selenium	1.2	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	370000	550	5000	ug/l		6020	12/01/14	5
TPH (GC/FID) Low Fraction	5500	310	1000	ug/l		8015D/G	11/22/14	10
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	100.			% Rec.		8015D/G	11/22/14	1
Volatile Organics								
Acetone	U	200	1000	ug/l	J4	8260B	11/23/14	20
Benzene	370	6.6	20.	ug/l		8260B	11/23/14	20
Bromodichloromethane	U	7.6	20.	ug/l		8260B	11/23/14	20
Bromoform	U	9.4	20.	ug/l		8260B	11/23/14	20
Bromomethane	U	17.	100	ug/l		8260B	11/23/14	20
n-Butylbenzene	40.	7.2	20.	ug/l		8260B	11/23/14	20
sec-Butylbenzene	40.	7.3	20.	ug/l		8260B	11/23/14	20
Carbon disulfide	20.	5.5	20.	ug/l		8260B	11/23/14	20
Carbon tetrachloride	U	7.6	20.	ug/l		8260B	11/23/14	20
Chlorobenzene	U	7.0	20.	ug/l		8260B	11/23/14	20
Chlorodibromomethane	U	6.5	20.	ug/l		8260B	11/23/14	20
Chloroethane	U	9.1	100	ug/l		8260B	11/23/14	20
Chloroform	U	6.5	100	ug/l		8260B	11/23/14	20
Chloromethane	U	5.5	50.	ug/l		8260B	11/23/14	20
1,2-Dibromoethane	U	7.6	20.	ug/l		8260B	11/23/14	20
1,1-Dichloroethane	U	5.2	20.	ug/l		8260B	11/23/14	20
1,2-Dichloroethane	U	7.2	20.	ug/l		8260B	11/23/14	20
1,1-Dichloroethene	U	8.0	20.	ug/l		8260B	11/23/14	20
cis-1,2-Dichloroethene	U	5.2	20.	ug/l		8260B	11/23/14	20

U = ND (Not Detected)

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(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-150

Sample ID : MW-94

Site ID : REST

Collected By : SU/HMI Team
Collection Date : 11/13/14 16:10

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	7.9	20.	ug/l		8260B	11/23/14	20
1,2-Dichloropropane	U	6.1	20.	ug/l		8260B	11/23/14	20
cis-1,3-Dichloropropene	U	8.4	20.	ug/l		8260B	11/23/14	20
trans-1,3-Dichloropropene	U	8.4	20.	ug/l		8260B	11/23/14	20
Ethylbenzene	580	7.7	20.	ug/l		8260B	11/23/14	20
Isopropylbenzene	84.	6.5	20.	ug/l		8260B	11/23/14	20
p-Isopropyltoluene	20.	7.0	20.	ug/l		8260B	11/23/14	20
2-Butanone (MEK)	U	79.	200	ug/l	J4	8260B	11/23/14	20
2-Hexanone	U	76.	200	ug/l		8260B	11/23/14	20
Methylene Chloride	U	20.	100	ug/l		8260B	11/23/14	20
4-Methyl-2-pentanone (MIBK)	U	43.	200	ug/l		8260B	11/23/14	20
Methyl tert-butyl ether	1300	7.3	20.	ug/l		8260B	11/23/14	20
Naphthalene	220	20.	100	ug/l		8260B	11/23/14	20
n-Propylbenzene	130	7.0	20.	ug/l		8260B	11/23/14	20
Styrene	U	6.1	20.	ug/l		8260B	11/23/14	20
1,1,1,2-Tetrachloroethane	U	7.7	20.	ug/l		8260B	11/23/14	20
1,1,2,2-Tetrachloroethane	U	2.6	20.	ug/l		8260B	11/23/14	20
Tetrachloroethene	U	7.4	20.	ug/l		8260B	11/23/14	20
Toluene	700	16.	100	ug/l		8260B	11/23/14	20
1,1,1-Trichloroethane	U	6.4	20.	ug/l		8260B	11/23/14	20
1,1,2-Trichloroethane	U	7.7	20.	ug/l		8260B	11/23/14	20
Trichloroethene	U	8.0	20.	ug/l		8260B	11/23/14	20
1,2,4-Trimethylbenzene	540	7.5	20.	ug/l		8260B	11/23/14	20
1,3,5-Trimethylbenzene	120	7.7	20.	ug/l		8260B	11/23/14	20
Vinyl chloride	U	5.2	20.	ug/l		8260B	11/23/14	20
o-Xylene	400	6.8	20.	ug/l		8260B	11/23/14	20
m&p-Xylene	310	14.	40.	ug/l		8260B	11/23/14	20
Xylenes, Total	710	21.	60.	ug/l		8260B	11/23/14	20
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	11/23/14	1
Dibromofluoromethane	100.			% Rec.		8260B	11/23/14	1
4-Bromofluorobenzene	97.2			% Rec.		8260B	11/23/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	9400	44.	200	ug/l		8015	11/20/14	2
C28-C40 Oil Range	1200	24.	200	ug/l		8015	11/20/14	2
Surrogate Recovery								
o-Terphenyl	69.9			% Rec.		8015	11/20/14	2

U = ND (Not Detected)

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1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-151

Sample ID : DUP-REST-01

Site ID : REST (QA/QC)

Collected By : SU/HMI Team
Collection Date : 11/13/14 12:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	190000	2600	50000	ug/l		300.0	11/22/14	50
Fluoride	490	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	860000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	2000000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	9.3	0.25	2.0	ug/l		6020	12/01/14	1
Barium	48.	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	320000	230	5000	ug/l		6020	12/01/14	5
Chromium	U	0.54	1.0	ug/l		6020	12/01/14	1
Iron	700	50.	100	ug/l		6020	12/01/14	1
Lead	U	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	1900	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	400	37.	1000	ug/l	J	6020	12/01/14	1
Selenium	0.70	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	170000	550	5000	ug/l		6020	12/01/14	5
TPH (GC/FID) Low Fraction	2700	310	1000	ug/l		8015D/G	11/21/14	10
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	96.7			% Rec.		8015D/G	11/21/14	10
Volatile Organics								
Acetone	U	100	500	ug/l		8260B	11/22/14	10
Benzene	1200	3.3	10.	ug/l		8260B	11/22/14	10
Bromodichloromethane	U	3.8	10.	ug/l		8260B	11/22/14	10
Bromoform	U	4.7	10.	ug/l		8260B	11/22/14	10
Bromomethane	U	8.7	50.	ug/l		8260B	11/22/14	10
n-Butylbenzene	U	3.6	10.	ug/l		8260B	11/22/14	10
sec-Butylbenzene	U	3.6	10.	ug/l		8260B	11/22/14	10
Carbon disulfide	U	2.8	10.	ug/l		8260B	11/22/14	10
Carbon tetrachloride	U	3.8	10.	ug/l		8260B	11/22/14	10
Chlorobenzene	U	3.5	10.	ug/l		8260B	11/22/14	10
Chlorodibromomethane	U	3.3	10.	ug/l		8260B	11/22/14	10
Chloroethane	U	4.5	50.	ug/l		8260B	11/22/14	10
Chloroform	U	3.2	50.	ug/l		8260B	11/22/14	10
Chloromethane	U	2.8	25.	ug/l		8260B	11/22/14	10
1,2-Dibromoethane	U	3.8	10.	ug/l		8260B	11/22/14	10
1,1-Dichloroethane	U	2.6	10.	ug/l		8260B	11/22/14	10
1,2-Dichloroethane	U	3.6	10.	ug/l		8260B	11/22/14	10
1,1-Dichloroethene	U	4.0	10.	ug/l		8260B	11/22/14	10
cis-1,2-Dichloroethene	U	2.6	10.	ug/l		8260B	11/22/14	10

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Fax (615) 758-5859

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REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : DUP-REST-01

Collected By : SU/HMI Team
Collection Date : 11/13/14 12:00

ESC Sample # : L733743-151

Site ID : REST (QA/QC)

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	4.0	10.	ug/l		8260B	11/22/14	10
1,2-Dichloropropane	U	3.1	10.	ug/l		8260B	11/22/14	10
cis-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/22/14	10
trans-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/22/14	10
Ethylbenzene	7.9	3.8	10.	ug/l	J	8260B	11/22/14	10
Isopropylbenzene	9.7	3.3	10.	ug/l	J	8260B	11/22/14	10
p-Isopropyltoluene	U	3.5	10.	ug/l		8260B	11/22/14	10
2-Butanone (MEK)	U	39.	100	ug/l	J4J3	8260B	11/22/14	10
2-Hexanone	U	38.	100	ug/l		8260B	11/22/14	10
Methylene Chloride	U	10.	50.	ug/l		8260B	11/22/14	10
4-Methyl-2-pentanone (MIBK)	U	21.	100	ug/l		8260B	11/22/14	10
Methyl tert-butyl ether	19.	3.7	10.	ug/l		8260B	11/22/14	10
Naphthalene	32.	10.	50.	ug/l	J	8260B	11/22/14	10
n-Propylbenzene	U	3.5	10.	ug/l		8260B	11/22/14	10
Styrene	U	3.1	10.	ug/l		8260B	11/22/14	10
1,1,1,2-Tetrachloroethane	U	3.8	10.	ug/l		8260B	11/22/14	10
1,1,2,2-Tetrachloroethane	U	1.3	10.	ug/l		8260B	11/22/14	10
Tetrachloroethene	U	3.7	10.	ug/l		8260B	11/22/14	10
Toluene	U	7.8	50.	ug/l		8260B	11/22/14	10
1,1,1-Trichloroethane	U	3.2	10.	ug/l		8260B	11/22/14	10
1,1,2-Trichloroethane	U	3.8	10.	ug/l		8260B	11/22/14	10
Trichloroethene	U	4.0	10.	ug/l		8260B	11/22/14	10
1,2,4-Trimethylbenzene	39.	3.7	10.	ug/l		8260B	11/22/14	10
1,3,5-Trimethylbenzene	6.9	3.9	10.	ug/l	J	8260B	11/22/14	10
Vinyl chloride	U	2.6	10.	ug/l		8260B	11/22/14	10
o-Xylene	15.	3.4	10.	ug/l		8260B	11/22/14	10
m&p-Xylene	85.	7.2	20.	ug/l		8260B	11/22/14	10
Xylenes, Total	100	11.	30.	ug/l		8260B	11/22/14	10
Surrogate Recovery								
Toluene-d8	99.5			% Rec.		8260B	11/22/14	1
Dibromofluoromethane	97.6			% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	102.			% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	820	110	500	ug/l		8015	11/20/14	5
C28-C40 Oil Range	580	59.	500	ug/l		8015	11/20/14	5
Surrogate Recovery								
o-Terphenyl	114.			% Rec.		8015	11/20/14	5

U = ND (Not Detected)

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MDL = Minimum Detection Limit = LOD = TRRP SDL

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-152

Sample ID : DUP-REST-02

Site ID : REST (QA/QC)

Collected By : SU/HMI Team
Collection Date : 11/13/14 13:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	54000	52.	1000	ug/l		300.0	11/23/14	1
Fluoride	1800	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	800000	3900	250000	ug/l		300.0	11/22/14	50
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	1300000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	1.7	0.25	2.0	ug/l	J	6020	12/01/14	1
Barium	29.	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	230000	230	5000	ug/l		6020	12/01/14	5
Chromium	0.75	0.54	1.0	ug/l	J	6020	12/01/14	1
Iron	U	50.	100	ug/l		6020	12/01/14	1
Lead	U	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	32.	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	6300	37.	1000	ug/l		6020	12/01/14	1
Selenium	0.95	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	67000	110	1000	ug/l		6020	12/01/14	1
TPH (GC/FID) Low Fraction	1400	310	1000	ug/l		8015D/G	11/21/14	10
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.2			% Rec.		8015D/G	11/21/14	10
Volatile Organics								
Acetone	U	100	500	ug/l		8260B	11/22/14	10
Benzene	110	3.3	10.	ug/l		8260B	11/22/14	10
Bromodichloromethane	U	3.8	10.	ug/l		8260B	11/22/14	10
Bromoform	U	4.7	10.	ug/l		8260B	11/22/14	10
Bromomethane	U	8.7	50.	ug/l		8260B	11/22/14	10
n-Butylbenzene	U	3.6	10.	ug/l		8260B	11/22/14	10
sec-Butylbenzene	42.	3.6	10.	ug/l		8260B	11/22/14	10
Carbon disulfide	U	2.8	10.	ug/l		8260B	11/22/14	10
Carbon tetrachloride	U	3.8	10.	ug/l		8260B	11/22/14	10
Chlorobenzene	U	3.5	10.	ug/l		8260B	11/22/14	10
Chlorodibromomethane	U	3.3	10.	ug/l		8260B	11/22/14	10
Chloroethane	U	4.5	50.	ug/l		8260B	11/22/14	10
Chloroform	U	3.2	50.	ug/l		8260B	11/22/14	10
Chloromethane	U	2.8	25.	ug/l		8260B	11/22/14	10
1,2-Dibromoethane	U	3.8	10.	ug/l		8260B	11/22/14	10
1,1-Dichloroethane	U	2.6	10.	ug/l		8260B	11/22/14	10
1,2-Dichloroethane	U	3.6	10.	ug/l		8260B	11/22/14	10
1,1-Dichloroethene	U	4.0	10.	ug/l		8260B	11/22/14	10
cis-1,2-Dichloroethene	U	2.6	10.	ug/l		8260B	11/22/14	10

U = ND (Not Detected)

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-152

Sample ID : DUP-REST-02

Site ID : REST (QA/QC)

Collected By : SU/HMI Team
Collection Date : 11/13/14 13:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	4.0	10.	ug/l		8260B	11/22/14	10
1,2-Dichloropropane	U	3.1	10.	ug/l		8260B	11/22/14	10
cis-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/22/14	10
trans-1,3-Dichloropropene	U	4.2	10.	ug/l		8260B	11/22/14	10
Ethylbenzene	U	3.8	10.	ug/l		8260B	11/22/14	10
Isopropylbenzene	46.	3.3	10.	ug/l		8260B	11/22/14	10
p-Isopropyltoluene	U	3.5	10.	ug/l		8260B	11/22/14	10
2-Butanone (MEK)	U	39.	100	ug/l	J4J3	8260B	11/22/14	10
2-Hexanone	U	38.	100	ug/l		8260B	11/22/14	10
Methylene Chloride	U	10.	50.	ug/l		8260B	11/22/14	10
4-Methyl-2-pentanone (MIBK)	U	21.	100	ug/l		8260B	11/22/14	10
Methyl tert-butyl ether	U	3.7	10.	ug/l		8260B	11/22/14	10
Naphthalene	U	10.	50.	ug/l		8260B	11/22/14	10
n-Propylbenzene	9.7	3.5	10.	ug/l	J	8260B	11/22/14	10
Styrene	U	3.1	10.	ug/l		8260B	11/22/14	10
1,1,1,2-Tetrachloroethane	U	3.8	10.	ug/l		8260B	11/22/14	10
1,1,2,2-Tetrachloroethane	U	1.3	10.	ug/l		8260B	11/22/14	10
Tetrachloroethene	U	3.7	10.	ug/l		8260B	11/22/14	10
Toluene	U	7.8	50.	ug/l		8260B	11/22/14	10
1,1,1-Trichloroethane	U	3.2	10.	ug/l		8260B	11/22/14	10
1,1,2-Trichloroethane	U	3.8	10.	ug/l		8260B	11/22/14	10
Trichloroethene	U	4.0	10.	ug/l		8260B	11/22/14	10
1,2,4-Trimethylbenzene	U	3.7	10.	ug/l		8260B	11/22/14	10
1,3,5-Trimethylbenzene	U	3.9	10.	ug/l		8260B	11/22/14	10
Vinyl chloride	U	2.6	10.	ug/l		8260B	11/22/14	10
o-Xylene	U	3.4	10.	ug/l		8260B	11/22/14	10
m&p-Xylene	U	7.2	20.	ug/l		8260B	11/22/14	10
Xylenes, Total	U	11.	30.	ug/l		8260B	11/22/14	10
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	11/22/14	1
Dibromofluoromethane	95.2			% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	105.			% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	620	110	500	ug/l		8015	11/20/14	5
C28-C40 Oil Range	330	59.	500	ug/l	J	8015	11/20/14	5
Surrogate Recovery								
o-Terphenyl	105.			% Rec.		8015	11/20/14	5

U = ND (Not Detected)

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REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : DUP-REST-03

Collected By : SU/HMI Team
Collection Date : 11/13/14 08:00

ESC Sample # : L733743-153

Site ID : REST (QA/QC)

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	96000	52.	1000	ug/l		300.0	11/23/14	1
Fluoride	2400	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	2200000	7700	500000	ug/l		300.0	11/22/14	100
Nitrate-Nitrite	640	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	3300000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	2.4	0.25	2.0	ug/l		6020	12/01/14	1
Barium	16.	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	640000	460	10000	ug/l		6020	12/01/14	10
Chromium	2.4	0.54	1.0	ug/l		6020	12/01/14	1
Iron	710	50.	100	ug/l		6020	12/01/14	1
Lead	0.86	0.24	2.0	ug/l	J	6020	12/01/14	1
Manganese	14.	0.25	5.0	ug/l		6020	12/01/14	1
Nickel	2.2	0.35	2.0	ug/l		6020	12/01/14	1
Potassium	5000	37.	1000	ug/l		6020	12/01/14	1
Selenium	7.9	0.38	2.0	ug/l		6020	12/01/14	1
Sodium	98000	110	1000	ug/l		6020	12/01/14	1
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/21/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.7			% Rec.		8015D/G	11/21/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/22/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/22/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/22/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/22/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/22/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/22/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/22/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/22/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/22/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1

U = ND (Not Detected)

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1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : DUP-REST-03

Collected By : SU/HMI Team
Collection Date : 11/13/14 08:00

ESC Sample # : L733743-153

Site ID : REST (QA/QC)

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/22/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/22/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/22/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/22/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l	J4J3	8260B	11/22/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/22/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/22/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/22/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/22/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/22/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/22/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/22/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/22/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/22/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/22/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/22/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/22/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/22/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/22/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/22/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/22/14	1
Surrogate Recovery								
Toluene-d8	99.7			% Rec.		8260B	11/22/14	1
Dibromofluoromethane	100.			% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	99.9			% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	120	110	500	ug/l	J	8015	11/20/14	5
C28-C40 Oil Range	200	59.	500	ug/l	J	8015	11/20/14	5
Surrogate Recovery								
o-Terphenyl	116.			% Rec.		8015	11/20/14	5

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-154

Sample ID : DUP-REST-04

Site ID : REST (QA/QC)

Collected By : SU/HMI Team
Collection Date : 11/13/14 08:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	1500000	5200	100000	ug/l		300.0	11/22/14	100
Fluoride	590	9.9	100	ug/l		300.0	11/23/14	1
Sulfate	1400000	7700	500000	ug/l		300.0	11/22/14	100
Cyanide	U	1.8	5.0	ug/l		9012B	11/21/14	1
Nitrate-Nitrite	46000	99.	500	ug/l		353.2	11/20/14	5
Dissolved Solids	4500000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	2.0	0.25	2.0	ug/l		6020	12/01/14	1
Barium	28.	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	740000	460	10000	ug/l		6020	12/01/14	10
Chromium	U	0.54	1.0	ug/l		6020	12/01/14	1
Iron	U	50.	100	ug/l		6020	12/01/14	1
Lead	5.5	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	160	0.25	5.0	ug/l		6020	12/01/14	1
Nickel	4.2	0.35	2.0	ug/l		6020	12/01/14	1
Potassium	810	37.	1000	ug/l	J	6020	12/01/14	1
Selenium	8.2	0.38	2.0	ug/l		6020	12/01/14	1
Sodium	430000	1100	10000	ug/l		6020	12/01/14	10
Vanadium	12.	0.18	5.0	ug/l		6020	12/01/14	1
Mercury	U	0.049	0.20	ug/l		7470A	11/18/14	1
TPH (GC/FID) Low Fraction	290	31.	100	ug/l		8015D/G	11/21/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.8			% Rec.		8015D/G	11/21/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/22/14	1
Benzene	7.2	0.33	1.0	ug/l		8260B	11/22/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/22/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/22/14	1
n-Butylbenzene	0.92	0.36	1.0	ug/l	J	8260B	11/22/14	1
sec-Butylbenzene	2.4	0.36	1.0	ug/l		8260B	11/22/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/22/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/22/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/22/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/22/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/22/14	1

U = ND (Not Detected)

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1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : DUP-REST-04

Collected By : SU/HMI Team
Collection Date : 11/13/14 08:00

ESC Sample # : L733743-154

Site ID : REST (QA/QC)

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloromethane	U	0.28	2.5	ug/l		8260B	11/22/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/22/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/22/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/22/14	1
Isopropylbenzene	2.4	0.33	1.0	ug/l		8260B	11/22/14	1
p-Isopropyltoluene	0.56	0.35	1.0	ug/l	J	8260B	11/22/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l	J4J3	8260B	11/22/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/22/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/22/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/22/14	1
Methyl tert-butyl ether	1.5	0.37	1.0	ug/l		8260B	11/22/14	1
Naphthalene	19.	1.0	5.0	ug/l		8260B	11/22/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/22/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/22/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/22/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/22/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/22/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2,4-Trimethylbenzene	47.	0.37	1.0	ug/l		8260B	11/22/14	1
1,3,5-Trimethylbenzene	1.1	0.39	1.0	ug/l		8260B	11/22/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/22/14	1
o-Xylene	0.68	0.34	1.0	ug/l	J	8260B	11/22/14	1
m&p-Xylene	1.5	0.72	2.0	ug/l	J	8260B	11/22/14	1
Xylenes, Total	2.2	1.1	3.0	ug/l	J	8260B	11/22/14	1
Surrogate Recovery								
Toluene-d8	99.8			% Rec.		8260B	11/22/14	1
Dibromofluoromethane	103.			% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	100.			% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	860	110	500	ug/l		8015	11/20/14	5
C28-C40 Oil Range	320	59.	500	ug/l	J	8015	11/20/14	5
Surrogate Recovery								

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

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Mt. Juliet, TN 37122
(615) 758-5858
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Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : DUP-REST-04
Collected By : SU/HMI Team
Collection Date : 11/13/14 08:00

ESC Sample # : L733743-154
Site ID : REST (QA/QC)
Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
o-Terphenyl	117.			% Rec.		8015	11/20/14	5

U = ND (Not Detected)
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
MDL = Minimum Detection Limit = LOD = TRRP SDL
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1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : DUP-REST-05
Collected By : SU/HMI Team
Collection Date : 11/13/14 12:05

ESC Sample # : L733743-155

Site ID : REST (QA/QC)

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	130000	5200	100000	ug/l		300.0	11/22/14	100
Fluoride	450	9.9	100	ug/l		300.0	11/26/14	1
Sulfate	2400000	7700	500000	ug/l		300.0	11/22/14	100
Cyanide	U	1.8	5.0	ug/l		9012B	11/21/14	1
Nitrate-Nitrite	4300	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	3700000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	1.6	0.25	2.0	ug/l	J	6020	12/01/14	1
Barium	10.	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	610000	460	10000	ug/l		6020	12/01/14	10
Chromium	0.60	0.54	1.0	ug/l	J	6020	12/01/14	1
Iron	U	50.	100	ug/l		6020	12/01/14	1
Lead	U	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	1.6	0.25	5.0	ug/l	J	6020	12/01/14	1
Nickel	0.65	0.35	2.0	ug/l	J	6020	12/01/14	1
Potassium	670	37.	1000	ug/l	J	6020	12/01/14	1
Selenium	4.6	0.38	2.0	ug/l		6020	12/01/14	1
Sodium	150000	1100	10000	ug/l		6020	12/01/14	10
Vanadium	12.	0.18	5.0	ug/l		6020	12/01/14	1
Mercury	U	0.049	0.20	ug/l		7470A	11/18/14	1
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/21/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.1			% Rec.		8015D/G	11/21/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/22/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/22/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/22/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/22/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/22/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/22/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/22/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/22/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : DUP-REST-05

Collected By : SU/HMI Team
Collection Date : 11/13/14 12:05

ESC Sample # : L733743-155

Site ID : REST (QA/QC)

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloromethane	U	0.28	2.5	ug/l		8260B	11/22/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/22/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/22/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/22/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/22/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l	J4J3	8260B	11/22/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/22/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/22/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/22/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/22/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/22/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/22/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/22/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/22/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/22/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/22/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/22/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/22/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/22/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/22/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/22/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/22/14	1
Surrogate Recovery								
Toluene-d8	99.0			% Rec.		8260B	11/22/14	1
Dibromofluoromethane	104.			% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	102.			% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	74.	22.	100	ug/l	J	8015	11/21/14	1
C28-C40 Oil Range	U	12.	100	ug/l		8015	11/21/14	1
Surrogate Recovery								

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

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Fax (615) 758-5859
Tax I.D. 62-0814289
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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : DUP-REST-05
Collected By : SU/HMI Team
Collection Date : 11/13/14 12:05

ESC Sample # : L733743-155
Site ID : REST (QA/QC)
Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
o-Terphenyl	125.			% Rec.		8015	11/21/14	1

U = ND (Not Detected)
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
MDL = Minimum Detection Limit = LOD = TRRP SDL
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1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-156

Sample ID : EB-REST-01

Site ID : REST (QA/QC)

Collected By : SU/HMI Team
Collection Date : 11/13/14 12:40

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	130	52.	1000	ug/l	J	300.0	11/22/14	1
Fluoride	U	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	570	77.	5000	ug/l	J	300.0	11/22/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	U	2800	10000	ug/l	T4	2540 C-	11/20/14	1
Arsenic	U	0.25	2.0	ug/l		6020	12/01/14	1
Barium	U	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	150	46.	1000	ug/l	J	6020	12/01/14	1
Chromium	U	0.54	1.0	ug/l		6020	12/01/14	1
Iron	U	50.	100	ug/l		6020	12/01/14	1
Lead	U	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	U	0.25	5.0	ug/l		6020	12/01/14	1
Potassium	U	37.	1000	ug/l		6020	12/01/14	1
Selenium	0.66	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	140	110	1000	ug/l	J	6020	12/01/14	1
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/21/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.6			% Rec.		8015D/G	11/21/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/21/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/21/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/21/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/21/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/21/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/21/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/21/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/21/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/21/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/21/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-156

Sample ID : EB-REST-01

Site ID : REST (QA/QC)

Collected By : SU/HMI Team
Collection Date : 11/13/14 12:40

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/21/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/21/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/21/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l	J4J5	8260B	11/21/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/21/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/21/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/21/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/21/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/21/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/21/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/21/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/21/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/21/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/21/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/21/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/21/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/21/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/21/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/21/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/21/14	1
Surrogate Recovery								
Toluene-d8	99.8			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	101.			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	100.			% Rec.		8260B	11/21/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	42.	22.	100	ug/l	J	8015	11/21/14	1
C28-C40 Oil Range	U	12.	100	ug/l		8015	11/21/14	1
Surrogate Recovery								
o-Terphenyl	125.			% Rec.		8015	11/21/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-157

Sample ID : EB-REST-02

Site ID : REST (QA/QC)

Collected By : SU/HMI Team
Collection Date : 11/13/14 14:30

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	4400	52.	1000	ug/l		300.0	11/22/14	1
Fluoride	U	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	U	77.	5000	ug/l		300.0	11/22/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	34000	2800	10000	ug/l		2540 C-	11/20/14	1
Arsenic	0.53	0.25	2.0	ug/l	J	6020	12/01/14	1
Barium	5.6	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	2300	46.	1000	ug/l		6020	12/01/14	1
Chromium	U	0.54	1.0	ug/l		6020	12/01/14	1
Iron	U	50.	100	ug/l		6020	12/01/14	1
Lead	U	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	1.7	0.25	5.0	ug/l	J	6020	12/01/14	1
Potassium	190	37.	1000	ug/l	J	6020	12/01/14	1
Selenium	0.75	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	3100	110	1000	ug/l		6020	12/01/14	1
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/21/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.4			% Rec.		8015D/G	11/21/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/22/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/22/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/22/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/22/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/22/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/22/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/22/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/22/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/22/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/22/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/22/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/22/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-157

Sample ID : EB-REST-02

Site ID : REST (QA/QC)

Collected By : SU/HMI Team
Collection Date : 11/13/14 14:30

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/22/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/22/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/22/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/22/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/22/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l	J4J3	8260B	11/22/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/22/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/22/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/22/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/22/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/22/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/22/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/22/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/22/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/22/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/22/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/22/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/22/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/22/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/22/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/22/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/22/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/22/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/22/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/22/14	1
Surrogate Recovery								
Toluene-d8	99.1			% Rec.		8260B	11/22/14	1
Dibromofluoromethane	96.7			% Rec.		8260B	11/22/14	1
4-Bromofluorobenzene	101.			% Rec.		8260B	11/22/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	240	22.	100	ug/l		8015	11/21/14	1
C28-C40 Oil Range	15.	12.	100	ug/l	J	8015	11/21/14	1
Surrogate Recovery								
o-Terphenyl	130.			% Rec.		8015	11/21/14	1

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : EB-REST-03

Collected By : SU/HMI Team
Collection Date : 11/12/14 11:50

ESC Sample # : L733743-158

Site ID : REST (QA/QC)

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	71.	52.	1000	ug/l	JP1	300.0	11/22/14	1
Fluoride	U	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	U	77.	5000	ug/l		300.0	11/22/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	U	2800	10000	ug/l	T4	2540 C-	11/19/14	1
Arsenic	U	0.25	2.0	ug/l		6020	12/01/14	1
Barium	U	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	100	46.	1000	ug/l	J	6020	12/01/14	1
Chromium	U	0.54	1.0	ug/l		6020	12/01/14	1
Iron	U	50.	100	ug/l		6020	12/01/14	1
Lead	U	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	0.29	0.25	5.0	ug/l	J	6020	12/01/14	1
Potassium	U	37.	1000	ug/l		6020	12/01/14	1
Selenium	0.96	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	320	110	1000	ug/l	J	6020	12/01/14	1
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/21/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	98.5			% Rec.		8015D/G	11/21/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l	J4	8260B	11/23/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/23/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/23/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/23/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/23/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/23/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/23/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/23/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/23/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/23/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/23/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/23/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/23/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/23/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/23/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/23/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/23/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/23/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/23/14	1

U = ND (Not Detected)

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-158

Sample ID : EB-REST-03

Site ID : REST (QA/QC)

Collected By : SU/HMI Team
Collection Date : 11/12/14 11:50

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/23/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/23/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/23/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/23/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/23/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/23/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/23/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l	J4	8260B	11/23/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/23/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/23/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/23/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/23/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/23/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/23/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/23/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/23/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/23/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/23/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/23/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/23/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/23/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/23/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/23/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/23/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/23/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/23/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/23/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/23/14	1
Surrogate Recovery								
Toluene-d8	99.6			% Rec.		8260B	11/23/14	1
Dibromofluoromethane	105.			% Rec.		8260B	11/23/14	1
4-Bromofluorobenzene	92.7			% Rec.		8260B	11/23/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	27.	22.	100	ug/l	J	8015	11/19/14	1
C28-C40 Oil Range	64.	12.	100	ug/l	J	8015	11/19/14	1
Surrogate Recovery								
o-Terphenyl	118.			% Rec.		8015	11/19/14	1

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-159

Sample ID : EB-REST-04

Site ID : REST (QA/QC)

Collected By : SU/HMI Team
Collection Date : 11/12/14 09:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	4200	52.	1000	ug/l		300.0	11/22/14	1
Fluoride	U	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	U	77.	5000	ug/l		300.0	11/22/14	1
Cyanide	U	1.8	5.0	ug/l		9012B	11/21/14	1
Nitrate-Nitrite	U	20.	100	ug/l		353.2	11/20/14	1
Dissolved Solids	12000	2800	10000	ug/l	T4	2540 C-	11/19/14	1
Arsenic	U	0.25	2.0	ug/l		6020	12/01/14	1
Barium	U	0.36	5.0	ug/l		6020	12/01/14	1
Calcium	120	46.	1000	ug/l	J	6020	12/01/14	1
Chromium	U	0.54	1.0	ug/l		6020	12/01/14	1
Iron	U	50.	100	ug/l		6020	12/01/14	1
Lead	U	0.24	2.0	ug/l		6020	12/01/14	1
Manganese	0.37	0.25	5.0	ug/l	J	6020	12/01/14	1
Nickel	U	0.35	2.0	ug/l		6020	12/01/14	1
Potassium	U	37.	1000	ug/l		6020	12/01/14	1
Selenium	1.0	0.38	2.0	ug/l	J	6020	12/01/14	1
Sodium	320	110	1000	ug/l	J	6020	12/01/14	1
Vanadium	U	0.18	5.0	ug/l		6020	12/01/14	1
Mercury	U	0.049	0.20	ug/l		7470A	11/18/14	1
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/19/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	101.			% Rec.		8015D/G	11/19/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l	J4	8260B	11/23/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/23/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/23/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/23/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/23/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/23/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/23/14	1
Carbon disulfide	0.33	0.28	1.0	ug/l	J	8260B	11/23/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/23/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/23/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/23/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/23/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/23/14	1

U = ND (Not Detected)

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1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-159

Sample ID : EB-REST-04

Site ID : REST (QA/QC)

Collected By : SU/HMI Team
Collection Date : 11/12/14 09:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloromethane	U	0.28	2.5	ug/l		8260B	11/23/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/23/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/23/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/23/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/23/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/23/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/23/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/23/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/23/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/23/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/23/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/23/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/23/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l	J4	8260B	11/23/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/23/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/23/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/23/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/23/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/23/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/23/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/23/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/23/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/23/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/23/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/23/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/23/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/23/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/23/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/23/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/23/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/23/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/23/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/23/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/23/14	1
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	11/23/14	1
Dibromofluoromethane	102.			% Rec.		8260B	11/23/14	1
4-Bromofluorobenzene	96.3			% Rec.		8260B	11/23/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	200	22.	100	ug/l		8015	11/19/14	1
C28-C40 Oil Range	24.	12.	100	ug/l	J	8015	11/19/14	1
Surrogate Recovery								

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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Fax (615) 758-5859
Tax I.D. 62-0814289
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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : EB-REST-04
Collected By : SU/HMI Team
Collection Date : 11/12/14 09:00

ESC Sample # : L733743-159
Site ID : REST (QA/QC)
Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
o-Terphenyl	117.			% Rec.		8015	11/19/14	1

U = ND (Not Detected)
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
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1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-160

Sample ID : EB-REST-05

Site ID : REST (QA/QC)

Collected By : SU/HMI Team
Collection Date : 11/13/14 12:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	430	52.	1000	ug/l	JP1	300.0	11/22/14	1
Fluoride	U	9.9	100	ug/l		300.0	11/22/14	1
Sulfate	1200	77.	5000	ug/l	JP1	300.0	11/22/14	1
Cyanide	U	1.8	5.0	ug/l		9012B	11/21/14	1
Nitrate-Nitrite	U	20.	100	ug/l	J6	353.2	11/20/14	1
Dissolved Solids	16000	2800	10000	ug/l	T4	2540 C-	11/20/14	1
Arsenic	U	0.25	2.0	ug/l		6020	11/20/14	1
Barium	2.9	0.36	5.0	ug/l	J	6020	11/20/14	1
Calcium	340	46.	1000	ug/l	J	6020	11/20/14	1
Chromium	U	0.54	1.0	ug/l		6020	11/20/14	1
Iron	U	50.	100	ug/l		6020	11/20/14	1
Lead	U	0.24	2.0	ug/l		6020	11/20/14	1
Manganese	6.0	0.25	5.0	ug/l		6020	11/20/14	1
Nickel	0.74	0.35	2.0	ug/l	J	6020	11/20/14	1
Potassium	U	37.	1000	ug/l		6020	11/20/14	1
Selenium	0.63	0.38	2.0	ug/l	J	6020	11/20/14	1
Sodium	240	110	1000	ug/l	J	6020	11/20/14	1
Vanadium	U	0.18	5.0	ug/l		6020	11/20/14	1
Mercury	U	0.049	0.20	ug/l		7470A	11/18/14	1
TPH (GC/FID) Low Fraction	U	31.	100	ug/l		8015D/G	11/19/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	101.			% Rec.		8015D/G	11/19/14	1
Volatile Organics								
Acetone	U	10.	50.	ug/l	J4	8260B	11/23/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/23/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/23/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/23/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/23/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/23/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/23/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/23/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/23/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/23/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/23/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/23/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/23/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

ESC Sample # : L733743-160

Sample ID : EB-REST-05

Site ID : REST (QA/QC)

Collected By : SU/HMI Team
Collection Date : 11/13/14 12:00

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloromethane	U	0.28	2.5	ug/l		8260B	11/23/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/23/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/23/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/23/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/23/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/23/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/23/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/23/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/23/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/23/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/23/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/23/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/23/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l	J4	8260B	11/23/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/23/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/23/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/23/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/23/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/23/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/23/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/23/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/23/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/23/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/23/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/23/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/23/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/23/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/23/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/23/14	1
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/23/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/23/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/23/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/23/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/23/14	1
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	11/23/14	1
Dibromofluoromethane	102.			% Rec.		8260B	11/23/14	1
4-Bromofluorobenzene	96.4			% Rec.		8260B	11/23/14	1
Diesel and Oil Ranges								
C10-C28 Diesel Range	3000	22.	100	ug/l		8015	11/21/14	1
C28-C40 Oil Range	35.	12.	100	ug/l	J	8015	11/21/14	1
Surrogate Recovery								

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : EB-REST-05
Collected By : SU/HMI Team
Collection Date : 11/13/14 12:00

ESC Sample # : L733743-160
Site ID : REST (QA/QC)
Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
o-Terphenyl	131.			% Rec.		8015	11/21/14	1

U = ND (Not Detected)
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
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REPORT OF ANALYSIS

January 27, 2015

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : TRIP BLANK-REST-01

Collected By : SU/HMI Team
Collection Date : 11/12/14 00:00

ESC Sample # : L733743-161

Site ID : REST (QA/QC)

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/21/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/21/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/21/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/21/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/21/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/21/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/21/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/21/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/21/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/21/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/21/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/21/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/21/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l	J4J3	8260B	11/21/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/21/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/21/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/21/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/21/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/21/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/21/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/21/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/21/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/21/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/21/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/21/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

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1-800-767-5859
Fax (615) 758-5859

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : TRIP BLANK-REST-01
Collected By : SU/HMI Team
Collection Date : 11/12/14 00:00

ESC Sample # : L733743-161
Site ID : REST (QA/QC)
Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/21/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/21/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/21/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/21/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/21/14	1
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	116.			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	102.			% Rec.		8260B	11/21/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

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REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM

Sample ID : TRIP BLANK-REST-02

Collected By : SU/HMI Team
Collection Date : 11/13/14 00:00

ESC Sample # : L733743-162

Site ID : REST (QA/QC)

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Volatile Organics								
Acetone	U	10.	50.	ug/l		8260B	11/21/14	1
Benzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
Bromodichloromethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Bromoform	U	0.47	1.0	ug/l		8260B	11/21/14	1
Bromomethane	U	0.87	5.0	ug/l		8260B	11/21/14	1
n-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
sec-Butylbenzene	U	0.36	1.0	ug/l		8260B	11/21/14	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	11/21/14	1
Carbon tetrachloride	U	0.38	1.0	ug/l		8260B	11/21/14	1
Chlorobenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Chlorodibromomethane	U	0.33	1.0	ug/l		8260B	11/21/14	1
Chloroethane	U	0.45	5.0	ug/l		8260B	11/21/14	1
Chloroform	U	0.32	5.0	ug/l		8260B	11/21/14	1
Chloromethane	U	0.28	2.5	ug/l		8260B	11/21/14	1
1,2-Dibromoethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethane	U	0.26	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloroethane	U	0.36	1.0	ug/l		8260B	11/21/14	1
1,1-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
cis-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	11/21/14	1
trans-1,2-Dichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2-Dichloropropane	U	0.31	1.0	ug/l		8260B	11/21/14	1
cis-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
trans-1,3-Dichloropropene	U	0.42	1.0	ug/l		8260B	11/21/14	1
Ethylbenzene	U	0.38	1.0	ug/l		8260B	11/21/14	1
Isopropylbenzene	U	0.33	1.0	ug/l		8260B	11/21/14	1
p-Isopropyltoluene	U	0.35	1.0	ug/l		8260B	11/21/14	1
2-Butanone (MEK)	U	3.9	10.	ug/l	J4J3	8260B	11/21/14	1
2-Hexanone	U	3.8	10.	ug/l		8260B	11/21/14	1
Methylene Chloride	U	1.0	5.0	ug/l		8260B	11/21/14	1
4-Methyl-2-pentanone (MIBK)	U	2.1	10.	ug/l		8260B	11/21/14	1
Methyl tert-butyl ether	U	0.37	1.0	ug/l		8260B	11/21/14	1
Naphthalene	U	1.0	5.0	ug/l		8260B	11/21/14	1
n-Propylbenzene	U	0.35	1.0	ug/l		8260B	11/21/14	1
Styrene	U	0.31	1.0	ug/l		8260B	11/21/14	1
1,1,1,2-Tetrachloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
1,1,2,2-Tetrachloroethane	U	0.13	1.0	ug/l		8260B	11/21/14	1
Tetrachloroethene	U	0.37	1.0	ug/l		8260B	11/21/14	1
Toluene	U	0.78	5.0	ug/l		8260B	11/21/14	1
1,1,1-Trichloroethane	U	0.32	1.0	ug/l		8260B	11/21/14	1
1,1,2-Trichloroethane	U	0.38	1.0	ug/l		8260B	11/21/14	1
Trichloroethene	U	0.40	1.0	ug/l		8260B	11/21/14	1
1,2,4-Trimethylbenzene	U	0.37	1.0	ug/l		8260B	11/21/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 01/23/15 14:45 Revised: 01/27/15 11:47



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Pam Krueger
ARCADIS US - TX
2929 Briarpark Dr., Suite 300
Houston, TX 77042

January 27, 2015

Date Received : November 15, 2014
Description : Navajo Refining Company - Artesia, NM
Sample ID : TRIP BLANK-REST-02
Collected By : SU/HMI Team
Collection Date : 11/13/14 00:00

ESC Sample # : L733743-162

Site ID : REST (QA/QC)

Project # : TX000836.0008.00004

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,3,5-Trimethylbenzene	U	0.39	1.0	ug/l		8260B	11/21/14	1
Vinyl chloride	U	0.26	1.0	ug/l		8260B	11/21/14	1
o-Xylene	U	0.34	1.0	ug/l		8260B	11/21/14	1
m&p-Xylene	U	0.72	2.0	ug/l		8260B	11/21/14	1
Xylenes, Total	U	1.1	3.0	ug/l		8260B	11/21/14	1
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	11/21/14	1
Dibromofluoromethane	114.			% Rec.		8260B	11/21/14	1
4-Bromofluorobenzene	100.			% Rec.		8260B	11/21/14	1

U = ND (Not Detected)

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

MDL = Minimum Detection Limit = LOD = TRRP SDL

Note:

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Reported: 01/23/15 14:45 Revised: 01/27/15 11:47

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L733743-94	WG754916	SAMP	n-Butylbenzene	R3006052	J
	WG754916	SAMP	p-Isopropyltoluene	R3006052	J
	WG754916	SAMP	o-Xylene	R3006052	J
	WG754916	SAMP	m&p-Xylene	R3006052	J
	WG754916	SAMP	Xylenes, Total	R3006052	J
	WG755121	SAMP	C28-C40 Oil Range	R3005267	J
	WG755209	SAMP	Arsenic	R3005553	J
L733743-95	WG755209	SAMP	Lead	R3005553	JB
	WG755209	SAMP	Manganese	R3005553	J
	WG755121	SAMP	C28-C40 Oil Range	R3005267	J
	WG755211	SAMP	Arsenic	R3005746	J
	WG755211	SAMP	Chromium	R3005746	JB
	WG755211	SAMP	Manganese	R3005746	J
	WG755211	SAMP	Nickel	R3005746	J
L733743-96	WG755211	SAMP	Potassium	R3005746	J
	WG755211	SAMP	Arsenic	R3005746	J
	WG755211	SAMP	Chromium	R3005746	JB
	WG755211	SAMP	Manganese	R3005746	J
	WG755211	SAMP	Nickel	R3005746	J
	WG755211	SAMP	Potassium	R3005746	J
	WG755211	SAMP	Chromium	R3005746	B
L733743-97	WG755211	SAMP	Iron	R3005746	J
	WG755211	SAMP	Lead	R3005746	J
	WG755211	SAMP	Selenium	R3005746	J
	WG754916	SAMP	Isopropylbenzene	R3006052	J
	WG754916	SAMP	Methyl tert-butyl ether	R3006052	J
	WG754916	SAMP	Naphthalene	R3006052	J
	WG755211	SAMP	Aluminum	R3005746	J
L733743-98	WG755211	SAMP	Chromium	R3005746	B
	WG755211	SAMP	Iron	R3005746	J
	WG755211	SAMP	Potassium	R3005746	J
	WG755211	SAMP	Selenium	R3005746	J
	WG754916	SAMP	Acetone	R3006052	J
	WG754916	SAMP	sec-Butylbenzene	R3006052	J
	WG754916	SAMP	Naphthalene	R3006052	J
L733743-99	WG754916	SAMP	Toluene	R3006052	J
	WG754916	SAMP	1,3,5-Trimethylbenzene	R3006052	J
	WG755211	SAMP	Arsenic	R3005746	J
	WG755211	SAMP	Chromium	R3005746	JB
	WG755211	SAMP	Lead	R3005746	J
	WG755211	SAMP	Selenium	R3005746	J
	WG755261	SAMP	Nitrate-Nitrite	R3005420	J6
L733743-100	WG754916	SAMP	Bromomethane	R3006052	J3
	WG754916	SAMP	sec-Butylbenzene	R3006052	J
	WG754916	SAMP	Carbon disulfide	R3006052	J
	WG755292	SAMP	Cyanide	R3005748	J
	WG755204	SAMP	Calcium	R3007660	V
	WG755204	SAMP	Lead	R3006455	J
	WG755204	SAMP	Potassium	R3006455	J
L733743-101	WG755204	SAMP	Selenium	R3006455	01J6
	WG755204	SAMP	Sodium	R3007660	V
	WG755204	SAMP	Vanadium	R3006455	J
	WG754916	SAMP	sec-Butylbenzene	R3006052	J
	WG754916	SAMP	Carbon disulfide	R3006052	J
	WG754916	SAMP	Toluene	R3006052	J
	WG755118	SAMP	C10-C28 Diesel Range	R3005752	J
L733743-102	WG755204	SAMP	Chromium	R3006455	J
	WG755204	SAMP	Lead	R3006455	J
	WG755204	SAMP	Selenium	R3006455	J
	WG754916	SAMP	Carbon disulfide	R3006052	J
	WG754916	SAMP	p-Isopropyltoluene	R3006052	J
	WG755118	SAMP	C10-C28 Diesel Range	R3005752	J
	WG754945	SAMP	TPH (GC/FID) Low Fraction	R3005634	J
L733743-103	WG755204	SAMP	Chromium	R3006455	J
	WG755204	SAMP	Lead	R3006455	J
	WG755204	SAMP	Potassium	R3006455	J
	WG755118	SAMP	C10-C28 Diesel Range	R3005752	J
	WG754945	SAMP	TPH (GC/FID) Low Fraction	R3005634	J
	WG755204	SAMP	Lead	R3006455	J
	WG755121	SAMP	C28-C40 Oil Range	R3005267	J

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L733743-105	WG755204	SAMP	Chromium	R3006455	J
	WG755204	SAMP	Iron	R3006455	J
	WG755204	SAMP	Lead	R3006455	J
	WG755204	SAMP	Nickel	R3006455	J
	WG755204	SAMP	Potassium	R3006455	J
	WG755204	SAMP	Vanadium	R3006455	J
	WG754916	SAMP	Carbon disulfide	R3006052	J
	WG754916	SAMP	n-Propylbenzene	R3006052	J
	WG755204	SAMP	Chromium	R3006455	J
	WG755204	SAMP	Lead	R3006455	J
L733743-106	WG755204	SAMP	Manganese	R3006455	J
	WG754916	SAMP	Naphthalene	R3006052	J
	WG755204	SAMP	Selenium	R3006455	J
	WG754917	SAMP	Chloroethane	R3005430	J4
	WG754917	SAMP	Methyl tert-butyl ether	R3005430	J
L733743-107	WG754917	SAMP	Naphthalene	R3005430	J4
	WG754917	SAMP	m&p-Xylene	R3005430	J
	WG754917	SAMP	Xylenes, Total	R3005430	J
	WG755204	SAMP	Chromium	R3006455	J
	WG755204	SAMP	Selenium	R3006455	J
	WG755204	SAMP	Vanadium	R3006455	J
	WG755572	SAMP	Sulfate	R3005977	J
L733743-108	WG754917	SAMP	n-Butylbenzene	R3005430	J
	WG754917	SAMP	Chloroethane	R3005430	J4
	WG754917	SAMP	Naphthalene	R3005430	J4
	WG755204	SAMP	Chromium	R3006455	J
	WG754917	SAMP	Carbon disulfide	R3005430	J
	WG754917	SAMP	Chloroethane	R3005430	J4
	WG754917	SAMP	Ethylbenzene	R3005430	J
L733743-109	WG754917	SAMP	Naphthalene	R3005430	JJ4
	WG754917	SAMP	o-Xylene	R3005430	J
	WG754917	SAMP	Carbon disulfide	R3005430	J
	WG754917	SAMP	Chloroethane	R3005430	J4
	WG754917	SAMP	Ethylbenzene	R3005430	J
	WG754917	SAMP	Isopropylbenzene	R3005430	J
	WG754917	SAMP	Naphthalene	R3005430	JJ4
L733743-110	WG754917	SAMP	1,3,5-Trimethylbenzene	R3005430	J
	WG755204	SAMP	Lead	R3006455	J
	WG755204	SAMP	Selenium	R3006455	J
	WG755673	SAMP	Bromomethane	R3005866	J3
L733743-111	WG755673	SAMP	Methyl tert-butyl ether	R3005866	E
	WG755204	SAMP	Arsenic	R3006455	J
	WG755204	SAMP	Iron	R3006455	J
	WG755204	SAMP	Potassium	R3006455	J
L733743-112	WG754917	SAMP	Chloroethane	R3005430	J4
	WG754917	SAMP	Naphthalene	R3005430	JJ4
	WG754917	SAMP	n-Propylbenzene	R3005430	J
	WG754917	SAMP	Toluene	R3005430	J
	WG755204	SAMP	Chromium	R3006455	J
	WG755204	SAMP	Lead	R3006455	J
	WG755204	SAMP	Potassium	R3006455	J
	WG755204	SAMP	Selenium	R3006455	J
	WG754917	SAMP	Chloroethane	R3005430	J4
	WG754917	SAMP	Ethylbenzene	R3005430	J
L733743-113	WG754917	SAMP	Isopropylbenzene	R3005430	J
	WG754917	SAMP	Naphthalene	R3005430	JJ4
	WG754917	SAMP	n-Propylbenzene	R3005430	J
	WG754946	SAMP	TPH (GC/FID) Low Fraction	R3005622	J
	WG755204	SAMP	Arsenic	R3006455	J
	WG754917	SAMP	n-Butylbenzene	R3005430	J
	WG754917	SAMP	Chloroethane	R3005430	J4
	WG754917	SAMP	Methyl tert-butyl ether	R3005430	J
	WG754917	SAMP	Naphthalene	R3005430	JJ4
	WG755204	SAMP	Chromium	R3006455	J
L733743-114	WG755204	SAMP	Lead	R3006455	J
	WG755204	SAMP	Potassium	R3006455	J
	WG754917	SAMP	sec-Butylbenzene	R3005430	J
	WG754917	SAMP	Chloroethane	R3005430	J4
	WG754917	SAMP	Methyl tert-butyl ether	R3005430	E
	WG754917	SAMP	Naphthalene	R3005430	J4
	WG754917	SAMP	Naphthalene	R3005430	J4

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L733743-115	WG754917	SAMP	Toluene	R3005430	J
	WG754917	SAMP	1,3,5-Trimethylbenzene	R3005430	J
	WG754917	SAMP	o-Xylene	R3005430	J
	WG755204	SAMP	Chromium	R3006455	J
	WG754917	SAMP	Bromodichloromethane	R3005430	J5J3
	WG754917	SAMP	Bromoform	R3005430	J5J3
	WG754917	SAMP	Bromomethane	R3005430	J3
	WG754917	SAMP	n-Butylbenzene	R3005430	J5J3
	WG754917	SAMP	sec-Butylbenzene	R3005430	J3
	WG754917	SAMP	Carbon disulfide	R3005430	J
	WG754917	SAMP	Carbon tetrachloride	R3005430	J3
	WG754917	SAMP	Chlorobenzene	R3005430	J5J3
	WG754917	SAMP	Chlorodibromomethane	R3005430	J5J3
	WG754917	SAMP	Chloroethane	R3005430	J4J6
	WG754917	SAMP	Chloroform	R3005430	J5J3
	WG754917	SAMP	Chloromethane	R3005430	J
	WG754917	SAMP	1,2-Dibromoethane	R3005430	J5J3
	WG754917	SAMP	1,1-Dichloroethane	R3005430	J3
	WG754917	SAMP	1,2-Dichloroethane	R3005430	J3
	WG754917	SAMP	cis-1,2-Dichloroethene	R3005430	J3
	WG754917	SAMP	1,2-Dichloropropane	R3005430	J5J3
	WG754917	SAMP	cis-1,3-Dichloropropene	R3005430	J5J3
	WG754917	SAMP	trans-1,3-Dichloropropene	R3005430	J5J3
	WG754917	SAMP	p-Isopropyltoluene	R3005430	J3
	WG754917	SAMP	2-Butanone (MEK)	R3005430	J5
	WG754917	SAMP	2-Hexanone	R3005430	J5J3
	WG754917	SAMP	4-Methyl-2-pentanone (MIBK)	R3005430	J5J3
	WG754917	SAMP	Methyl tert-butyl ether	R3005430	J3
	WG754917	SAMP	Naphthalene	R3005430	JJ4J5J3
	WG754917	SAMP	Styrene	R3005430	J5J3
	WG754917	SAMP	1,1,1,2-Tetrachloroethane	R3005430	J5J3
	WG754917	SAMP	1,1,2,2-Tetrachloroethane	R3005430	J5J3
	WG754917	SAMP	Tetrachloroethene	R3005430	J3
	WG754917	SAMP	Toluene	R3005430	J3
	WG754917	SAMP	1,1,2-Trichloroethane	R3005430	J5J3
	WG754917	SAMP	Trichloroethene	R3005430	J3
	WG754917	SAMP	1,2,4-Trimethylbenzene	R3005430	JJ3
	WG754917	SAMP	1,3,5-Trimethylbenzene	R3005430	JJ5J3
	WG754917	SAMP	o-Xylene	R3005430	JJ5J3
	WG754917	SAMP	m&p-Xylene	R3005430	J3
L733743-116	WG754917	SAMP	Xylenes, Total	R3005430	J3J5
	WG755204	SAMP	Chromium	R3006455	J
	WG755204	SAMP	Potassium	R3006455	J
	WG755204	SAMP	Selenium	R3006455	J
	WG754917	SAMP	Chloroethane	R3005430	J4
	WG754917	SAMP	Naphthalene	R3005430	JJ4
L733743-117	WG755204	SAMP	Lead	R3006455	J
	WG755204	SAMP	Potassium	R3006455	J
	WG755204	SAMP	Selenium	R3006455	J
	WG754917	SAMP	sec-Butylbenzene	R3005430	J
	WG754917	SAMP	Chloroethane	R3005430	J4
	WG754917	SAMP	Methyl tert-butyl ether	R3005430	E
L733743-118	WG754917	SAMP	Naphthalene	R3005430	J4
	WG754917	SAMP	Toluene	R3005430	J
	WG755478	SAMP	C28-C40 Oil Range	R3005753	J
	WG755204	SAMP	Chromium	R3006455	J
	WG755204	SAMP	Lead	R3006455	J
	WG755204	SAMP	Potassium	R3006455	J
L733743-119	WG755204	SAMP	Selenium	R3006455	J
	WG754917	SAMP	n-Butylbenzene	R3005430	J
	WG754917	SAMP	Chloroethane	R3005430	J4
	WG754917	SAMP	1,2-Dichloroethane	R3005430	J
	WG754917	SAMP	p-Isopropyltoluene	R3005430	J
	WG754917	SAMP	Naphthalene	R3005430	J4
	WG754917	SAMP	Toluene	R3005430	J
	WG755121	SAMP	C10-C28 Diesel Range	R3005267	J
	WG755204	SAMP	Lead	R3006455	J
	WG755204	SAMP	Selenium	R3006455	J
	WG754917	SAMP	Chloroethane	R3005430	J4
	WG754917	SAMP	Naphthalene	R3005430	JJ4

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L733743-120	WG755205	SAMP	Calcium	R3007460	V
	WG755205	SAMP	Chromium	R3007460	J
	WG755205	SAMP	Lead	R3007460	J
	WG755205	SAMP	Potassium	R3007460	J
	WG755205	SAMP	Sodium	R3007460	V
	WG754917	SAMP	Chloroethane	R3005430	J4
L733743-121	WG754917	SAMP	Naphthalene	R3005430	J4
	WG755121	SAMP	C10-C28 Diesel Range	R3005267	J
	WG755121	SAMP	C28-C40 Oil Range	R3005267	J
	WG755205	SAMP	Chromium	R3007460	J
	WG755205	SAMP	Manganese	R3007460	J
	WG754917	SAMP	Chloroethane	R3005430	J4
L733743-122	WG754917	SAMP	Naphthalene	R3005430	J4
	WG755478	SAMP	C10-C28 Diesel Range	R3005753	J
	WG755205	SAMP	Lead	R3007460	J
	WG754917	SAMP	Chloroethane	R3005430	J4
	WG754917	SAMP	Naphthalene	R3005430	J4
	WG755478	SAMP	C10-C28 Diesel Range	R3005753	J
L733743-123	WG755205	SAMP	Lead	R3007460	J
	WG755573	SAMP	Fluoride	R3006005	J6
	WG754917	SAMP	Chloroethane	R3005430	J4
	WG754917	SAMP	Naphthalene	R3005430	J4
	WG755478	SAMP	C10-C28 Diesel Range	R3005753	J
	WG755205	SAMP	Lead	R3007460	J
L733743-124	WG755205	SAMP	Selenium	R3007460	J
	WG754917	SAMP	Chloroethane	R3005430	J4
	WG754917	SAMP	Naphthalene	R3005430	J4
	WG755121	SAMP	C10-C28 Diesel Range	R3005267	J
	WG755121	SAMP	C28-C40 Oil Range	R3005267	J
	WG755205	SAMP	Chromium	R3007460	J
L733743-125	WG754917	SAMP	Chloroethane	R3005430	J4
	WG754917	SAMP	Naphthalene	R3005430	J4
	WG755205	SAMP	Lead	R3007460	J
	WG755205	SAMP	Potassium	R3007460	J
	WG755205	SAMP	Selenium	R3007460	J
	WG754918	SAMP	Acetone	R3005615	J3
L733743-126	WG755205	SAMP	Potassium	R3007460	J
	WG755205	SAMP	Selenium	R3007460	J
	WG755205	SAMP	Lead	R3007460	J
	WG754918	SAMP	Acetone	R3005615	J3
	WG755205	SAMP	Potassium	R3007460	J
	WG755205	SAMP	Selenium	R3007460	J
L733743-127	WG754918	SAMP	Acetone	R3005615	J3
	WG755205	SAMP	Potassium	R3007460	J
	WG755205	SAMP	Selenium	R3007460	J
	WG754918	SAMP	Acetone	R3005615	J3
	WG755205	SAMP	Selenium	R3007460	J
	WG754918	SAMP	Acetone	R3005615	J3
L733743-128	WG755205	SAMP	Potassium	R3007460	J
	WG755205	SAMP	Selenium	R3007460	J
	WG754918	SAMP	Acetone	R3005615	J3
	WG755205	SAMP	Potassium	R3007460	J
	WG755205	SAMP	Selenium	R3007460	J
	WG754918	SAMP	Acetone	R3005615	J3
L733743-129	WG755205	SAMP	Potassium	R3007460	J
	WG755205	SAMP	Selenium	R3007460	J
	WG754918	SAMP	Acetone	R3005615	J3
	WG754918	SAMP	sec-Butylbenzene	R3005615	J
	WG754918	SAMP	Methyl tert-butyl ether	R3005615	E
	WG754918	SAMP	Toluene	R3005615	J
L733743-130	WG754918	SAMP	1,3,5-Trimethylbenzene	R3005615	J
	WG755205	SAMP	Lead	R3007460	J
	WG754918	SAMP	Acetone	R3005615	J3
	WG755205	SAMP	Lead	R3007460	J
	WG755205	SAMP	Potassium	R3007460	J
	WG755205	SAMP	Selenium	R3007460	J
L733743-131	WG754918	SAMP	Acetone	R3005615	J3
	WG754918	SAMP	n-Butylbenzene	R3005615	J
	WG754918	SAMP	sec-Butylbenzene	R3005615	J
	WG754918	SAMP	p-Isopropyltoluene	R3005615	J
	WG754918	SAMP	Methyl tert-butyl ether	R3005615	E
	WG754918	SAMP	Naphthalene	R3005615	J
L733743-132	WG755122	SAMP	C10-C28 Diesel Range	R3005268	J
	WG755122	SAMP	C28-C40 Oil Range	R3005268	J
	WG755205	SAMP	Lead	R3007460	J
	WG754918	SAMP	Acetone	R3005615	J3
	WG754918	SAMP	Acetone	R3005615	J3
	WG754918	SAMP	Acetone	R3005615	J3
L733743-133	WG754918	SAMP	Acetone	R3005615	J3
	WG754918	SAMP	Acetone	R3005615	J3
	WG754918	SAMP	Acetone	R3005615	J3
	WG755205	SAMP	Iron	R3007460	J
	WG755205	SAMP	Potassium	R3007460	J
	WG755205	SAMP	Selenium	R3007460	J
L733743-134	WG754918	SAMP	Acetone	R3005615	J3
	WG754918	SAMP	Isopropylbenzene	R3005615	J
	WG754918	SAMP	Naphthalene	R3005615	J
	WG754918	SAMP	TPH (GC/FID) Low Fraction	R3005962	J
	WG754947	SAMP	TPH (GC/FID) Low Fraction	R3005962	J
	WG754947	SAMP	TPH (GC/FID) Low Fraction	R3005962	J

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L733743-137	WG755205	SAMP	Selenium	R3007460	J
	WG754918	SAMP	Acetone	R3005615	J3
	WG754918	SAMP	sec-Butylbenzene	R3005615	J
	WG754918	SAMP	Naphthalene	R3005615	J
	WG754918	SAMP	Toluene	R3005615	J
	WG754918	SAMP	o-Xylene	R3005615	J
	WG755205	SAMP	Chromium	R3007460	J
	WG755205	SAMP	Lead	R3007460	J
	WG755205	SAMP	Potassium	R3007460	J
	WG755205	SAMP	Selenium	R3007460	J
	WG754918	SAMP	Acetone	R3005615	J3
	WG754918	SAMP	Naphthalene	R3005615	J
L733743-138	WG754918	SAMP	1,3,5-Trimethylbenzene	R3005615	J
	WG754918	SAMP	o-Xylene	R3005615	J
	WG754918	SAMP	Acetone	R3005615	J3
	WG754918	SAMP	n-Butylbenzene	R3005615	J
	WG754918	SAMP	sec-Butylbenzene	R3005615	J
	WG754918	SAMP	p-Isopropyltoluene	R3005615	J
	WG754918	SAMP	Methyl tert-butyl ether	R3005615	E
	WG754918	SAMP	Naphthalene	R3005615	J
	WG755205	SAMP	Potassium	R3007460	J
	WG755205	SAMP	Selenium	R3007460	J
	WG754918	SAMP	Acetone	R3005615	J3
	WG754918	SAMP	n-Butylbenzene	R3005615	J
L733743-139	WG754918	SAMP	sec-Butylbenzene	R3005615	J
	WG754918	SAMP	p-Isopropyltoluene	R3005615	J
	WG754918	SAMP	Methyl tert-butyl ether	R3005615	E
	WG754918	SAMP	Naphthalene	R3005615	J
	WG755205	SAMP	Potassium	R3007460	J
	WG755205	SAMP	Selenium	R3007460	J
	WG754918	SAMP	Acetone	R3005615	J3
	WG754918	SAMP	n-Butylbenzene	R3005615	J
	WG754918	SAMP	sec-Butylbenzene	R3005615	J
	WG754918	SAMP	p-Isopropyltoluene	R3005615	J
	WG754918	SAMP	Methyl tert-butyl ether	R3005615	E
	WG755478	SAMP	C28-C40 Oil Range	R3005753	J
L733743-140	WG755207	SAMP	Chromium	R3007479	J
	WG755207	SAMP	Selenium	R3007479	J
	WG754918	SAMP	Acetone	R3005615	J3
	WG754918	SAMP	n-Butylbenzene	R3005615	J
	WG754918	SAMP	sec-Butylbenzene	R3005615	J
	WG754918	SAMP	Toluene	R3005615	J
	WG755207	SAMP	Chromium	R3007479	J
	WG755207	SAMP	Lead	R3007479	J
	WG755207	SAMP	Selenium	R3007479	J
	WG754918	SAMP	Acetone	R3005615	J3
	WG754918	SAMP	Ethylbenzene	R3005615	J
	WG754918	SAMP	Isopropylbenzene	R3005615	J
L733743-141	WG754918	SAMP	Methyl tert-butyl ether	R3005615	E
	WG754918	SAMP	Naphthalene	R3005615	J
	WG755207	SAMP	Chromium	R3007479	J
	WG755207	SAMP	Lead	R3007479	J
	WG755207	SAMP	Potassium	R3007479	J
	WG755207	SAMP	Selenium	R3007479	J
	WG755736	SAMP	Bromomethane	R3005627	J4
	WG755736	SAMP	sec-Butylbenzene	R3005627	J
	WG755736	SAMP	p-Isopropyltoluene	R3005627	J
	WG755207	SAMP	Lead	R3007479	J
	WG755207	SAMP	Potassium	R3007479	J
	WG755207	SAMP	Selenium	R3007479	J
L733743-142	WG755736	SAMP	Bromomethane	R3005627	J4
	WG755736	SAMP	sec-Butylbenzene	R3005627	J
	WG755207	SAMP	Chromium	R3007479	J
	WG755207	SAMP	Nickel	R3007479	J
	WG755207	SAMP	Potassium	R3007479	J
	WG755207	SAMP	Selenium	R3007479	J
	WG755207	SAMP	Vanadium	R3007479	J
	WG755736	SAMP	Bromomethane	R3005627	J4
	WG755736	SAMP	sec-Butylbenzene	R3005627	J
	WG755736	SAMP	Bromomethane	R3005627	J4
	WG755736	SAMP	1,2,4-Trimethylbenzene	R3005627	J
	WG755736	SAMP	m&p-Xylene	R3005627	J
L733743-143	WG755207	SAMP	Potassium	R3007479	J
	WG754919	SAMP	Isopropylbenzene	R3006039	J
	WG754919	SAMP	2-Butanone (MEK)	R3006039	J4J3
	WG754919	SAMP	Methyl tert-butyl ether	R3006039	E
	WG754919	SAMP	n-Propylbenzene	R3006039	J
	WG754919	SAMP	1,3,5-Trimethylbenzene	R3006039	J

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L733743-147	WG755207	SAMP	Calcium	R3007479	V
	WG755207	SAMP	Chromium	R3007479	J
	WG755207	SAMP	Lead	R3007479	J
	WG755207	SAMP	Potassium	R3007479	J
	WG755207	SAMP	Sodium	R3007479	V
	WG754919	SAMP	Isopropylbenzene	R3006039	J
	WG754919	SAMP	2-Butanone (MEK)	R3006039	J4J3
	WG754919	SAMP	n-Propylbenzene	R3006039	J
	WG754919	SAMP	Toluene	R3006039	J
	WG754919	SAMP	1,3,5-Trimethylbenzene	R3006039	J
	WG754919	SAMP	o-Xylene	R3006039	J
	WG754919	SAMP	m&p-Xylene	R3006039	J
L733743-148	WG754919	SAMP	Xylenes, Total	R3006039	J
	WG755207	SAMP	Arsenic	R3007479	J
	WG755207	SAMP	Chromium	R3007479	J
	WG755207	SAMP	Lead	R3007479	J
	WG755207	SAMP	Potassium	R3007479	J
	WG755207	SAMP	Vanadium	R3007479	J
	WG756413	SAMP	Acetone	R3006164	J4
	WG756413	SAMP	n-Butylbenzene	R3006164	J
	WG756413	SAMP	Carbon disulfide	R3006164	J
	WG756413	SAMP	cis-1,2-Dichloroethene	R3006164	J
	WG756413	SAMP	2-Butanone (MEK)	R3006164	J4
	WG756413	SAMP	Naphthalene	R3006164	J
L733743-149	WG756413	SAMP	1,2,4-Trimethylbenzene	R3006164	J
	WG756413	SAMP	m&p-Xylene	R3006164	J
	WG756413	SAMP	Xylenes, Total	R3006164	J
	WG755207	SAMP	Chromium	R3007479	J
	WG755207	SAMP	Lead	R3007479	J
	WG754919	SAMP	Ethylbenzene	R3006039	J
	WG754919	SAMP	Isopropylbenzene	R3006039	J
	WG754919	SAMP	2-Butanone (MEK)	R3006039	J4J3
	WG754919	SAMP	n-Propylbenzene	R3006039	J
	WG754919	SAMP	Toluene	R3006039	J
	WG754919	SAMP	1,2,4-Trimethylbenzene	R3006039	J
	WG754919	SAMP	Xylenes, Total	R3006039	J
L733743-150	WG755207	SAMP	Iron	R3007479	J
	WG755207	SAMP	Potassium	R3007479	J
	WG755207	SAMP	Selenium	R3007479	J
	WG756413	SAMP	Acetone	R3006164	J4
	WG756413	SAMP	2-Butanone (MEK)	R3006164	J4
L733743-151	WG755207	SAMP	Potassium	R3007479	J
	WG755207	SAMP	Selenium	R3007479	J
	WG754919	SAMP	Ethylbenzene	R3006039	J
	WG754919	SAMP	Isopropylbenzene	R3006039	J
	WG754919	SAMP	2-Butanone (MEK)	R3006039	J4J3
L733743-152	WG754919	SAMP	Naphthalene	R3006039	J
	WG754919	SAMP	1,3,5-Trimethylbenzene	R3006039	J
	WG755478	SAMP	C28-C40 Oil Range	R3005753	J
	WG755207	SAMP	Arsenic	R3007479	J
	WG755207	SAMP	Chromium	R3007479	J
L733743-153	WG755207	SAMP	Selenium	R3007479	J
	WG754919	SAMP	2-Butanone (MEK)	R3006039	J4J3
	WG754919	SAMP	n-Propylbenzene	R3006039	J
	WG755478	SAMP	C10-C28 Diesel Range	R3005753	J
	WG755478	SAMP	C28-C40 Oil Range	R3005753	J
L733743-154	WG755207	SAMP	Lead	R3007479	J
	WG754919	SAMP	2-Butanone (MEK)	R3006039	J4J3
	WG755478	SAMP	C28-C40 Oil Range	R3005753	J
	WG755207	SAMP	Potassium	R3007479	J
	WG754919	SAMP	n-Butylbenzene	R3006039	J
L733743-155	WG754919	SAMP	p-Isopropyltoluene	R3006039	J
	WG754919	SAMP	2-Butanone (MEK)	R3006039	J4J3
	WG754919	SAMP	o-Xylene	R3006039	J
	WG754919	SAMP	m&p-Xylene	R3006039	J
	WG754919	SAMP	Xylenes, Total	R3006039	J
L733743-155	WG755492	SAMP	C10-C28 Diesel Range	R3005971	J
	WG755207	SAMP	Arsenic	R3007479	J
	WG755207	SAMP	Chromium	R3007479	J
	WG755207	SAMP	Manganese	R3007479	J

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L733743-156	WG755207	SAMP	Nickel	R3007479	J
	WG755207	SAMP	Potassium	R3007479	J
	WG754919	SAMP	2-Butanone (MEK)	R3006039	J4J3
	WG755492	SAMP	C10-C28 Diesel Range	R3005971	J
	WG755343	SAMP	Dissolved Solids	R3005641	T4
	WG755207	SAMP	Calcium	R3007479	J
	WG755207	SAMP	Selenium	R3007479	J
	WG755207	SAMP	Sodium	R3007479	J
	WG755977	SAMP	Chloride	R3006049	J
L733743-157	WG755977	SAMP	Sulfate	R3006049	J
	WG754919	SAMP	2-Butanone (MEK)	R3006039	J4J5
	WG755492	SAMP	C28-C40 Oil Range	R3005971	J
	WG755207	SAMP	Arsenic	R3007479	J
	WG755207	SAMP	Manganese	R3007479	J
	WG755207	SAMP	Potassium	R3007479	J
	WG755207	SAMP	Selenium	R3007479	J
	WG754919	SAMP	2-Butanone (MEK)	R3006039	J4J3
	WG755122	SAMP	C10-C28 Diesel Range	R3005268	J
L733743-158	WG755122	SAMP	C28-C40 Oil Range	R3005268	J
	WG755137	SAMP	Dissolved Solids	R3005387	T4
	WG755207	SAMP	Calcium	R3007479	J
	WG755207	SAMP	Manganese	R3007479	J
	WG755207	SAMP	Selenium	R3007479	J
	WG755207	SAMP	Sodium	R3007479	J
	WG755977	SAMP	Chloride	R3006049	JP1
	WG756413	SAMP	Acetone	R3006164	J4
	WG756413	SAMP	2-Butanone (MEK)	R3006164	J4
L733743-159	WG755122	SAMP	C28-C40 Oil Range	R3005268	J
	WG755137	SAMP	Dissolved Solids	R3005387	T4
	WG755207	SAMP	Calcium	R3007479	J
	WG755207	SAMP	Manganese	R3007479	J
	WG755207	SAMP	Selenium	R3007479	J
	WG755207	SAMP	Sodium	R3007479	J
	WG756413	SAMP	Acetone	R3006164	J4
	WG756413	SAMP	Carbon disulfide	R3006164	J
	WG756413	SAMP	2-Butanone (MEK)	R3006164	J4
L733743-160	WG755492	SAMP	C28-C40 Oil Range	R3005971	J
	WG755343	SAMP	Dissolved Solids	R3005641	T4
	WG755211	SAMP	Barium	R3005746	J
	WG755211	SAMP	Calcium	R3005746	J
	WG755211	SAMP	Nickel	R3005746	J
	WG755211	SAMP	Selenium	R3005746	J
	WG755211	SAMP	Sodium	R3005746	J
	WG755581	SAMP	Nitrate-Nitrite	R3005666	J6
	WG755977	SAMP	Chloride	R3006049	JP1
L733743-161	WG755977	SAMP	Sulfate	R3006049	JP1
	WG756413	SAMP	Acetone	R3006164	J4
	WG756413	SAMP	2-Butanone (MEK)	R3006164	J4
	WG754919	SAMP	2-Butanone (MEK)	R3006039	J4J3
L733743-162	WG754919	SAMP	2-Butanone (MEK)	R3006039	J4J3

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
B	(EPA) - The indicated compound was found in the associated method blank as well as the laboratory sample.
E	GTL (EPA) - Greater than upper calibration limit: Actual value is known to be greater than the upper calibration range.
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
01	(ESC) The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
Q	(ESC) Sample held beyond the accepted holding time.
T4	(ESC) - Additional method/sample information: QNS - Quantity Not Sufficient
V	(ESC) - Additional QC Info: The sample concentration is too high to evaluate accurate spike recoveries.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy** - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision** - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate** - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC** - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds,

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning

or surrogates.

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755279
Analysis Date:	11/22/2014 8:01:00 AM	Analyst:	577
Instrument ID:	IC-10		
Sample Numbers:	L733743-01, -02		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.244	98	90 - 110	
Fluoride	1	8	8.2607	103	90 - 110	
Sulfate	1	40	40.293	101	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.199	98	90 - 110	
Fluoride	1	8	8.23	103	90 - 110	
Sulfate	1	40	40.086	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD
Chloride	1	40	39.244	98	39.199	98	90 - 110	0	20
Fluoride	1	8	8.2607	103	8.23	103	90 - 110	0	20
Sulfate	1	40	40.293	101	40.086	100	90 - 110	1	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Anions by Method 9056MOD
Project No: TX000836.0008.00004
Project: Navajo Refining Company - Artesia, NM
Collection Date: 11/11/2014
Analysis Date: 11/22/2014 9:34:00 AM
Instrument ID: IC-5
Sample Numbers: L733743-03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -66, -67, -69, -70, -71, -72, -73

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG755284
Analyst: 236

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	0.161	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	0.269	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.368	98	90 - 110	
Fluoride	1	8	8.2359	103	90 - 110	
Sulfate	1	40	40.125	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.294	98	90 - 110	
Fluoride	1	8	8.2141	103	90 - 110	
Sulfate	1	40	40.046	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
Chloride	1	40	39.368	98	39.294	98	90 - 110	0	20	
Fluoride	1	8	8.2359	103	8.2141	103	90 - 110	0	20	
Sulfate	1	40	40.125	100	40.046	100	90 - 110	0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755463
Analysis Date:	11/20/2014 2:06:00 AM	Analyst:	577
Instrument ID:	IC-8		
Sample Numbers:	L733743-56, -74, -75, -100, -101, -102		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.350	98	90 - 110	
Fluoride	1	8	8.1881	102	90 - 110	
Sulfate	1	40	40.245	101	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.318	98	90 - 110	
Fluoride	1	8	8.204	103	90 - 110	
Sulfate	1	40	40.258	101	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD
Chloride	1	40	39.350	98	39.318	98	90 - 110	0	20
Fluoride	1	8	8.1881	102	8.204	103	90 - 110	0	20
Sulfate	1	40	40.245	101	40.258	101	90 - 110	0	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Anions by Method 300.0
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/21/2014 7:01:00 PM
 Instrument ID: IC-5
 Sample Numbers: L733743-103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755572
 Analyst: 577

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	0.158	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.429	99	90 - 110	
Fluoride	1	8	8.2969	104	90 - 110	
Sulfate	1	40	40.242	101	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.390	98	90 - 110	
Fluoride	1	8	8.3157	104	90 - 110	
Sulfate	1	40	40.279	101	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
Chloride	1	40	39.429	99	39.390	98	90 - 110	0	20	
Fluoride	1	8	8.2969	104	8.3157	104	90 - 110	0	20	
Sulfate	1	40	40.242	101	40.279	101	90 - 110	0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Anions by Method 300.0
Project No: TX000836.0008.00004
Project: Navajo Refining Company - Artesia, NM
Collection Date: 11/11/2014
Analysis Date: 11/22/2014 1:53:00 AM
Instrument ID: IC-8
Sample Numbers: L733743-123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG755573
Analyst: 577

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.351	98	90 - 110	
Fluoride	1	8	8.2295	103	90 - 110	
Sulfate	1	40	40.729	102	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.292	98	90 - 110	
Fluoride	1	8	8.2219	103	90 - 110	
Sulfate	1	40	40.703	102	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD
Chloride	1	40	39.351	98	39.292	98	90 - 110	0	20
Fluoride	1	8	8.2295	103	8.2219	103	90 - 110	0	20
Sulfate	1	40	40.729	102	40.703	102	90 - 110	0	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Anions by Method 300.0
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/22/2014 10:35:00 PM
 Instrument ID: IC-9
 Sample Numbers: L733743-25, -26, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, -159, -

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755977
 Analyst: 236

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.265	98	90 - 110	
Fluoride	1	8	7.9391	99	90 - 110	
Sulfate	1	40	39.996	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.172	98	90 - 110	
Fluoride	1	8	7.9189	99	90 - 110	
Sulfate	1	40	39.829	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD
Chloride	1	40	39.265	98	39.172	98	90 - 110	0	20
Fluoride	1	8	7.9391	99	7.9189	99	90 - 110	0	20
Sulfate	1	40	39.996	100	39.829	100	90 - 110	0	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755979
Analysis Date:	11/22/2014 8:49:00 PM	Analyst:	236
Instrument ID:	IC-8		
Sample Numbers:	L733743-27, -28, -29, -30, -31, -32, -34, -35, -36, -37, -38, -39, -40, -43, -44, -45, -46, -47, -48, -52		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.440	99	90 - 110	
Fluoride	1	8	8.1724	102	90 - 110	
Sulfate	1	40	40.561	101	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.458	99	90 - 110	
Fluoride	1	8	8.2033	103	90 - 110	
Sulfate	1	40	40.661	102	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD
Chloride	1	40	39.440	99	39.458	99	90 - 110	0	20
Fluoride	1	8	8.1724	102	8.2033	103	90 - 110	0	20
Sulfate	1	40	40.561	101	40.661	102	90 - 110	0	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Anions by Method 300.0
Project No: TX000836.0008.00004
Project: Navajo Refining Company - Artesia, NM
Collection Date: 11/11/2014
Analysis Date: 11/23/2014 10:38:00 AM
Instrument ID: IC-5
Sample Numbers: L733743-53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG755980
Analyst: 183

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	0.157	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.259	98	90 - 110	
Fluoride	1	8	8.1958	102	90 - 110	
Sulfate	1	40	39.812	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.185	98	90 - 110	
Fluoride	1	8	8.217	103	90 - 110	
Sulfate	1	40	39.777	99	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD
Chloride	1	40	39.259	98	39.185	98	90 - 110	0	20
Fluoride	1	8	8.1958	102	8.217	103	90 - 110	0	20
Sulfate	1	40	39.812	100	39.777	99	90 - 110	0	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Anions by Method 300.0
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/23/2014 12:22:00 PM
 Instrument ID: IC-9
 Sample Numbers: L733743-87, -88, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755981
 Analyst: 236

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	0.286	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.325	98	90 - 110	
Fluoride	1	8	8.1434	102	90 - 110	
Sulfate	1	40	39.463	99	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.054	98	90 - 110	
Fluoride	1	8	8.0158	100	90 - 110	
Sulfate	1	40	39.542	99	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD
Chloride	1	40	39.325	98	39.054	98	90 - 110	1	20
Fluoride	1	8	8.1434	102	8.0158	100	90 - 110	2	20
Sulfate	1	40	39.463	99	39.542	99	90 - 110	0	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Anions by Method 300.0
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/24/2014 2:28:00 AM
 Instrument ID: IC-8
 Sample Numbers: L733743-28, -31, -40, -45, -108, -117, -119, -129, -138, -150

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG756286
 Analyst: 183

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.272	98	90 - 110	
Fluoride	1	8	8.1003	101	90 - 110	
Sulfate	1	40	40.161	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.131	98	90 - 110	
Fluoride	1	8	8.0925	101	90 - 110	
Sulfate	1	40	40.176	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD
Chloride	1	40	39.272	98	39.131	98	90 - 110	0	20
Fluoride	1	8	8.1003	101	8.0925	101	90 - 110	0	20
Sulfate	1	40	40.161	100	40.176	100	90 - 110	0	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756784
Analysis Date:	12/2/2014 8:29:00 PM	Analyst:	577
Instrument ID:	IC-9		
Sample Numbers:	L733743-66, -69, -70, -71, -72, -73		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.232	98	90 - 110	
Fluoride	1	8	8.0041	100	90 - 110	
Sulfate	1	40	40.019	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.169	98	90 - 110	
Fluoride	1	8	8.0069	100	90 - 110	
Sulfate	1	40	39.998	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD
Chloride	1	40	39.232	98	39.169	98	90 - 110	0	20
Fluoride	1	8	8.0041	100	8.0069	100	90 - 110	0	20
Sulfate	1	40	40.019	100	39.998	100	90 - 110	0	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0			Matrix:	Water - mg/L
Project No:	TX000836.0008.00004			EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM			Analytic Batch:	WG756800
Collection Date:	11/11/2014			Analyst:	577
Analysis Date:	11/26/2014 9:26:00 PM				
Instrument ID:	IC-5				
Sample Numbers:	L733743-53, -54, -55, -57, -58, -59, -155				

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	0.238	
Fluoride	16984-48-8	< 0.100	0.0400	
Sulfate	14808-79-8	< 5.00	0.378	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.234	98	90 - 110	
Fluoride	1	8	8.2733	103	90 - 110	
Sulfate	1	40	40.018	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.231	98	90 - 110	
Fluoride	1	8	8.2823	104	90 - 110	
Sulfate	1	40	39.977	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD
Chloride	1	40	39.234	98	39.231	98	90 - 110	0	20
Fluoride	1	8	8.2733	103	8.2823	104	90 - 110	0	20
Sulfate	1	40	40.018	100	39.977	100	90 - 110	0	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Anions by Method 300.0
Project No: TX000836.0008.00004
Project: Navajo Refining Company - Artesia, NM
Collection Date: 11/11/2014
Analysis Date: 11/28/2014 1:39:00 PM
Instrument ID: IC-5
Sample Numbers: L733743-77, -78, -79, -80, -81, -82, -83, -84, -85, -86

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG757012
Analyst: 577

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	0.235	
Fluoride	16984-48-8	< 0.100	0.0409	
Sulfate	14808-79-8	< 5.00	0.379	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.554	99	90 - 110	
Fluoride	1	8	8.4009	105	90 - 110	
Sulfate	1	40	40.468	101	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.280	98	90 - 110	
Fluoride	1	8	8.3117	104	90 - 110	
Sulfate	1	40	40.181	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD
Chloride	1	40	39.554	99	39.280	98	90 - 110	1	20
Fluoride	1	8	8.4009	105	8.3117	104	90 - 110	1	20
Sulfate	1	40	40.468	101	40.181	100	90 - 110	1	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0			Matrix:	Water - mg/L
Project No:	TX000836.0008.00004			EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM			Analytic Batch:	WG757344
Collection Date:	11/11/2014			Analyst:	236
Analysis Date:	12/1/2014 3:05:00 PM				
Instrument ID:	IC-10				
Sample Numbers:	L733743-85				

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.016	98	90 - 110	
Fluoride	1	8	8.1381	102	90 - 110	
Sulfate	1	40	39.885	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.007	98	90 - 110	
Fluoride	1	8	8.1458	102	90 - 110	
Sulfate	1	40	39.858	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
Chloride	1	40	39.016	98	39.007	98	90 - 110	0	20	
Fluoride	1	8	8.1381	102	8.1458	102	90 - 110	0	20	
Sulfate	1	40	39.885	100	39.858	100	90 - 110	0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG758368
Analysis Date:	12/5/2014 1:40:00 PM	Analyst:	577
Instrument ID:	IC-10		
Sample Numbers:	L733743-67		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.133	98	90 - 110	
Fluoride	1	8	8.0783	101	90 - 110	
Sulfate	1	40	39.620	99	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.162	98	90 - 110	
Fluoride	1	8	8.1069	101	90 - 110	
Sulfate	1	40	39.785	99	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD
Chloride	1	40	39.133	98	39.162	98	90 - 110	0	20
Fluoride	1	8	8.0783	101	8.1069	101	90 - 110	0	20
Sulfate	1	40	39.620	99	39.785	99	90 - 110	0	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD			Matrix:	Water - mg/L
Project No:	TX000836.0008.00004			EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM			Analytic Batch:	WG755279
Collection Date:	11/11/2014			Analyst:	577
Analysis Date:	11/22/2014 8:01:00 AM				
Instrument ID:	IC-10				
Sample Numbers:	L733743-01, -02				

Sample Duplicate

L732952-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	53.587	53.551	0	20	

Sample Duplicate

L733283-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.2328	0.2657	0	20	
Sulfate	1	0.2466	0.0849	0	20	

Matrix Spike / Matrix Spike Duplicate

L733584-02

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Fluoride	1	5	0.0554	5.0523	100	5.0463	100	80 - 120		0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Anions by Method 9056MOD
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/22/2014 9:34:00 AM
 Instrument ID: IC-5
 Sample Numbers: L733743-03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -66, -67, -69, -70, -71, -72, -73

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755284
 Analyst: 236

Sample Duplicate

L733743-05

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.3203	0.1876	52	20	P1
Fluoride	1	<0.0099	<0.0099		20	
Sulfate	1	0.4482	0.2723	49	20	P1

Sample Duplicate

L733743-14

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.2632	0.1952	30	20	P1
Fluoride	1	<0.0099	<0.0099		20	
Sulfate	1	0.3062	0.2727	12	20	

Matrix Spike / Matrix Spike Duplicate

L733743-11

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	0.2912	49.289	98	49.774	99	80 - 120		1	20	
Fluoride	1	5	0.0	4.9441	99	4.935	99	80 - 120		0	20	
Sulfate	1	50	0.3646	49.393	98	49.588	98	80 - 120		0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD			Matrix:	Water - mg/L
Project No:	TX000836.0008.00004			EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM			Analytic Batch:	WG755463
Collection Date:	11/11/2014			Analyst:	577
Analysis Date:	11/20/2014 2:06:00 AM				
Instrument ID:	IC-8				
Sample Numbers:	L733743-56, -74, -75, -100, -101, -102				

Sample Duplicate

L732989-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Fluoride	1	0.6026	0.6265	4	20	

Sample Duplicate

L733018-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Fluoride	1	0.2725	0.2842	4	20	

Sample Duplicate

L733146-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Fluoride	1	0.7431	0.7454	0	20	

Sample Duplicate

L733046-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Fluoride	1	0.3701	0.3688	0	20	

Matrix Spike / Matrix Spike Duplicate

L733124-02

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Sulfate	5	10	105.69	345.67	96	344.99	96	80 - 120		0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Anions by Method 300.0
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/21/2014 7:01:00 PM
 Instrument ID: IC-5
 Sample Numbers: L733743-103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755572
 Analyst: 577

Sample Duplicate

L733743-122

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	95.551	95.436	0	20	
Fluoride	1	2.9689	2.9631	0	20	
Sulfate	50	1980.8	1995.9	1	20	

Sample Duplicate

L733743-109

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	50	204.86	194.38	5	20	
Fluoride	1	3.141	3.0939	2	20	
Sulfate	50	1713.0	1645.6	4	20	

Matrix Spike / Matrix Spike Duplicate

L733743-113

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	53.764	99.938	92	99.277	91	80 - 120		1	20	
Fluoride	1	5	2.1014	6.879	96	6.5587	89	80 - 120		5	20	
Sulfate	10	5	712.33	1170.0	92	1171.3	92	80 - 120		0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Anions by Method 300.0
Project No: TX000836.0008.00004
Project: Navajo Refining Company - Artesia, NM
Collection Date: 11/11/2014
Analysis Date: 11/22/2014 1:53:00 AM
Instrument ID: IC-8
Sample Numbers: L733743-123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG755573
Analyst: 577

Sample Duplicate

L733743-133

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	100	1321.1	1304.5	1	20	
Fluoride	1	0.7767	0.7896	2	20	
Sulfate	100	2510.3	2533.1	1	20	

Sample Duplicate

L733743-124

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	49.161	49.051	0	20	
Fluoride	1	2.6573	2.6503	0	20	
Sulfate	50	2311.9	2247.0	3	20	

Matrix Spike / Matrix Spike Duplicate

L733743-123

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	50	1	159.21	2668.2	100	2616.8	98	80 - 120		2	20	
Fluoride	1	5	4.918	8.0736	63	8.0489	63	80 - 120	J6	0	20	
Sulfate	50	1	2707.7	5022.3	93	4976.3	91	80 - 120		1	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Anions by Method 300.0
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/22/2014 10:35:00 PM
 Instrument ID: IC-9
 Sample Numbers: L733743-25, -26, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, -159, -

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755977
 Analyst: 236

Sample Duplicate

L733743-158

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.071	-0.059	2227	20	P1
Fluoride	1	<0.0099	<0.0099		20	
Sulfate	1	<0.0774	<0.0774		20	

Sample Duplicate

L733743-160

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.4272	0.6595	43	20	P1
Fluoride	1	<0.0099	<0.0099		20	
Sulfate	1	1.1871	0.0342	189	20	P1

Matrix Spike / Matrix Spike Duplicate

L733743-159

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	4.2589	53.580	99	53.395	98	80 - 120		0	20	
Fluoride	1	5	-0.027	4.6583	93	4.651	93	80 - 120		0	20	
Sulfate	1	50	-0.324	49.449	99	49.203	98	80 - 120		0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Anions by Method 300.0
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/22/2014 8:49:00 PM
 Instrument ID: IC-8
 Sample Numbers: L733743-27, -28, -29, -30, -31, -32, -34, -35, -36, -37, -38, -39, -40, -43, -44, -45, -46, -47, -48, -52

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755979
 Analyst: 236

Sample Duplicate

L733743-39

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	13.904	13.848	0	20	
Fluoride	1	3.8939	3.8377	1	20	
Sulfate	50	4153.2	3975.4	4	20	

Sample Duplicate

L733743-29

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	50	3640.1	3476.5	5	20	
Fluoride	1	0.6882	0.6887	0	20	
Sulfate	50	4082.5	3905.5	4	20	

Matrix Spike / Matrix Spike Duplicate

L733743-30

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	50	1	1679.3	3964.6	91	3930.6	90	80 - 120		1	20	
Fluoride	1	5	0.8815	4.4617	72	4.5159	73	80 - 120	J6	1	20	
Sulfate	50	1	2791.4	4860.4	83	4822.8	81	80 - 120		1	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Anions by Method 300.0
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/23/2014 10:38:00 AM
 Instrument ID: IC-5
 Sample Numbers: L733743-53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755980
 Analyst: 183

Sample Duplicate

L733743-60

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.3973	0.3178	22	20	P1
Fluoride	1	0.0399	0.041	3	20	
Sulfate	1	0.7088	0.3049	80	20	P1

Sample Duplicate

L733743-63

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	0.2648	0.2666	1	20	
Fluoride	1	0.0465	0.0442	5	20	
Sulfate	1	0.3584	0.2957	19	20	

Matrix Spike / Matrix Spike Duplicate

L733743-61

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	1.0151	49.961	98	49.299	97	80 - 120		1	20	
Fluoride	1	5	0.0439	4.9061	97	4.7997	95	80 - 120		2	20	
Sulfate	1	50	0.2883	49.215	98	48.719	97	80 - 120		1	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Anions by Method 300.0
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/23/2014 12:22:00 PM
 Instrument ID: IC-9
 Sample Numbers: L733743-87, -88, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755981
 Analyst: 236

Sample Duplicate

L733881-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Fluoride	1	0.2176	0.2195	1	20	

Sample Duplicate

L733542-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Sulfate	10	319.20	285.45	11	20	

Matrix Spike / Matrix Spike Duplicate

L733743-88

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	2.6887	52.370	99	51.364	97	80 - 120		2	20	
Fluoride	1	5	-0.029	4.7432	95	4.8963	98	80 - 120		3	20	
Sulfate	1	50	2.093	49.874	96	48.513	93	80 - 120		3	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756286
Analysis Date:	11/24/2014 2:28:00 AM	Analyst:	183
Instrument ID:	IC-8		
Sample Numbers:	L733743-28, -31, -40, -45, -108, -117, -119, -129, -138, -150		

Sample Duplicate

L733884-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Sulfate	10	236.85	235.93	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-129

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
Sulfate	5	10	251.51	466.34	86	464.75	85	80 - 120		0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD			Matrix:	Water - mg/L
Project No:	TX000836.0008.00004			EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM			Analytic Batch:	WG756784
Collection Date:	11/11/2014			Analyst:	577
Analysis Date:	12/2/2014 8:29:00 PM				
Instrument ID:	IC-9				
Sample Numbers:	L733743-66, -69, -70, -71, -72, -73				

Sample Duplicate

L735467-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	20.887	20.747	1	20	
Sulfate	1	2.0146	2.0992	4	20	

Sample Duplicate

L735897-02

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	8.259	8.3673	1	20	

Matrix Spike / Matrix Spike Duplicate

L735467-03

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	35.065	82.632	95	83.748	97	80 - 120		1	20	
Sulfate	1	50	4.3213	54.180	100	54.016	99	80 - 120		0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756800
Analysis Date:	11/26/2014 9:26:00 PM	Analyst:	577
Instrument ID:	IC-5		
Sample Numbers:	L733743-53, -54, -55, -57, -58, -59, -155		

Sample Duplicate

L734837-03

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	35.123	29.836	16	20	

Matrix Spike / Matrix Spike Duplicate

L734613-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
Chloride	1	50	21.085	65.995	90	66.899	92	80 - 120		1	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0			Matrix:	Water - mg/L
Project No:	TX000836.0008.00004			EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM			Analytic Batch:	WG757012
Collection Date:	11/11/2014			Analyst:	577
Analysis Date:	11/28/2014 1:39:00 PM				
Instrument ID:	IC-5				
Sample Numbers:	L733743-77, -78, -79, -80, -81, -82, -83, -84, -85, -86				

Sample Duplicate

L733743-84

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	10	340.81	319.31	7	20	
Sulfate	10	723.53	693.31	4	20	

Sample Duplicate

L734287-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	97.954	92.737	5	20	

Matrix Spike / Matrix Spike Duplicate

L734867-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	97.719	142.85	90	142.91	90	80 - 120		0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 300.0			Matrix:	Water - mg/L
Project No:	TX000836.0008.00004			EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM			Analytic Batch:	WG757344
Collection Date:	11/11/2014			Analyst:	236
Analysis Date:	12/1/2014 3:05:00 PM				
Instrument ID:	IC-10				
Sample Numbers:	L733743-85				

Sample Duplicate

L735431-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	8.9034	9.3844	5	20	
Sulfate	1	13.129	13.429	2	20	

Sample Duplicate

L735078-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	10.408	10.412	0	20	

Matrix Spike / Matrix Spike Duplicate

L735338-10

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	78.954	124.19	90	121.48	85	80 - 120		2	20	
Sulfate	1	50	2.9194	51.373	97	54.090	102	80 - 120		5	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Anions by Method 9056MOD		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG758368
Analysis Date:	12/5/2014 1:40:00 PM	Analyst:	577
Instrument ID:	IC-10		
Sample Numbers:	L733743-67		

Sample Duplicate

L736163-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Sulfate	5	207.13	203.21	2	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Cyanide by Method 9012B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755288
Analysis Date:	11/19/2014 4:52:00 PM	Analyst:	578
Instrument ID:	LACHAT4		
Sample Numbers:	L733743-01, -02, -03		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Cyanide	57-12-5	< 0.00500	< 0.00180	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Cyanide	1	0.1	0.103	103	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Cyanide	1	0.1	0.102	102	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD % RPD	Control RPD Limits	Control RPD Qual
Cyanide	1	0.1	0.103	103	0.102	102	90 - 110	0.98	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Cyanide by Method 9012B
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/21/2014 7:28:00 AM
 Instrument ID: LACHAT4
 Sample Numbers: L733743-04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -100, -102, -104, -107, -144, -148, -154

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755292
 Analyst: 183

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Cyanide	57-12-5	< 0.00500	< 0.00180	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Cyanide	1	0.1	0.105	105	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Cyanide	1	0.1	0.0987	98.7	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Cyanide	1	0.1	0.105	105	0.0987	98.7	90 - 110	6.19	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Cyanide by Method 9012B
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/21/2014 8:30:00 AM
 Instrument ID: LACHAT4
 Sample Numbers: L733743-31, -55, -69, -77, -79, -91, -92, -93, -94, -95, -96, -98, -155, -159, -160

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755528
 Analyst: 183

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Cyanide	57-12-5	< 0.00500	< 0.00180	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Cyanide	1	0.1	0.105	105	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Cyanide	1	0.1	0.0999	99.9	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD	RPD Limits	Qual
Cyanide	1	0.1	0.105	105	0.0999	99.9	90 - 110	4.98	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Cyanide by Method 9012B			Matrix:	Water - mg/L
Project No:	TX000836.0008.00004			EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM			Analytic Batch:	WG755288
Collection Date:	11/11/2014			Analyst:	578
Analysis Date:	11/19/2014 4:52:00 PM				
Instrument ID:	LACHAT4				
Sample Numbers:	L733743-01, -02, -03				

Sample Duplicate

L733811-02

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Cyanide	1	<0.0018	<0.0018		20	

Sample Duplicate

L733743-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Cyanide	1	<0.0018	<0.0018		20	

Matrix Spike / Matrix Spike Duplicate

L733618-05

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Cyanide	1	0.2	0.0	0.201	100	0.2	100	90 - 110		0.5	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Cyanide by Method 9012B
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/21/2014 7:28:00 AM
 Instrument ID: LACHAT4
 Sample Numbers: L733743-04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -100, -102, -104, -107, -144, -148, -154

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755292
 Analyst: 183

Sample Duplicate

L733743-05

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Cyanide	1	<0.0018	<0.0018		20	

Sample Duplicate

L733743-10

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Cyanide	1	0.0	0.0023	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-04

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Cyanide	1	0.2	0.0	0.136	68	0.146	73	90 - 110	J6	7.09	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Cyanide by Method 9012B
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/21/2014 8:30:00 AM
 Instrument ID: LACHAT4
 Sample Numbers: L733743-31, -55, -69, -77, -79, -91, -92, -93, -94, -95, -96, -98, -155, -159, -160

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755528
 Analyst: 183

Sample Duplicate

L733743-31

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Cyanide	1	<0.0018	<0.0018		20	

Sample Duplicate

L733743-92

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Cyanide	1	<0.0018	<0.0018		20	

Matrix Spike / Matrix Spike Duplicate

L733620-07

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Cyanide	1	0.2	0.0	0.183	91.5	0.191	95.5	90 - 110		4.28	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Nitrate-Nitrite by Method 353.2
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/17/2014 4:17:00 PM
 Instrument ID: LACHAT5
 Sample Numbers: L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755162
 Analyst: 578

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.89	97.8	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.57	91.4	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Nitrate-Nitrite	1	5	4.89	97.8	4.57	91.4	90 - 110	6.77	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Nitrate-Nitrite by Method 353.2
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/18/2014 9:23:00 AM
 Instrument ID: LACHAT5
 Sample Numbers: L733743-30, -31, -32, -34, -35, -36, -37, -38, -39, -40, -43, -44, -45, -46, -47, -48, -52, -53, -54, -55

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755168
 Analyst: 578

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.13	103	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.82	96.4	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Nitrate-Nitrite	1	5	5.13	103	4.82	96.4	90 - 110	6.23	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Nitrate-Nitrite by Method 353.2
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/18/2014 12:09:00 PM
 Instrument ID: LACHAT5
 Sample Numbers: L733743-56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72, -73, -74, -75, -77, -78, -79

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755260
 Analyst: 578

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.86	97.2	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.69	93.8	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Nitrate-Nitrite	1	5	4.86	97.2	4.69	93.8	90 - 110	3.56	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Nitrate-Nitrite by Method 353.2
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/19/2014 3:38:00 AM
 Instrument ID: LACHAT5
 Sample Numbers: L733743-80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755261
 Analyst: 578

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.23	105	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.88	97.6	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Nitrate-Nitrite	1	5	5.23	105	4.88	97.6	90 - 110	6.92	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Nitrate-Nitrite by Method 353.2
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/20/2014 10:46:00 AM
 Instrument ID: LACHAT5
 Sample Numbers: L733743-101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -112, -113, -114, -115, -116, -117, -118, -119, -120

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755577
 Analyst: 578

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.99	99.8	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.74	94.8	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Nitrate-Nitrite	1	5	4.99	99.8	4.74	94.8	90 - 110	5.14	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Nitrate-Nitrite by Method 353.2
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/20/2014 9:27:00 AM
 Instrument ID: LACHAT5
 Sample Numbers: L733743-121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755578
 Analyst: 578

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.11	102	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.9	98	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Nitrate-Nitrite	1	5	5.11	102	4.9	98	90 - 110	4.2	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Nitrate-Nitrite by Method 353.2

Project No: TX000836.0008.00004

Project: Navajo Refining Company - Artesia, NM

Collection Date: 11/11/2014

Analysis Date: 11/20/2014 2:03:00 AM

Instrument ID: LACHAT5

Sample Numbers: L733743-141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, -159

Matrix: Water - mg/L

EPA ID: TN00003

Analytic Batch: WG755581

Analyst: 578

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.28	106	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	4.99	99.8	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Nitrate-Nitrite	1	5	5.28	106	4.99	99.8	90 - 110	5.65	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755868
Analysis Date:	11/20/2014 4:27:00 AM	Analyst:	183
Instrument ID:	LACHAT5		
Sample Numbers:	L733743-111		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.29	106	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.03	101	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Nitrate-Nitrite	1	5	5.29	106	5.03	101	90 - 110	5.04	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Nitrate-Nitrite by Method 353.2
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/17/2014 4:17:00 PM
 Instrument ID: LACHAT5
 Sample Numbers: L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755162
 Analyst: 578

Sample Duplicate

L733743-15

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	3.3	3.49	5.88	20	

Sample Duplicate

L733743-10

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	5	13	13.8	7.41	20	

Matrix Spike / Matrix Spike Duplicate

L733743-29

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	0.0	4.18	83.6	4.3	86	90 - 110	J6	2.83	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Nitrate-Nitrite by Method 353.2
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/18/2014 9:23:00 AM
 Instrument ID: LACHAT5
 Sample Numbers: L733743-30, -31, -32, -34, -35, -36, -37, -38, -39, -40, -43, -44, -45, -46, -47, -48, -52, -53, -54, -55

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755168
 Analyst: 578

Sample Duplicate

L733743-40

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.14	0.138	0	20	

Sample Duplicate

L733743-43

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	1.8	1.75	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-44

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	3.8	7.31	70.2	7.25	69	90 - 110	J6	0.82	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Nitrate-Nitrite by Method 353.2
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/18/2014 12:09:00 PM
 Instrument ID: LACHAT5
 Sample Numbers: L733743-56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72, -73, -74, -75, -77, -78, -79

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755260
 Analyst: 578

Sample Duplicate

L733743-78

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.85	0.666	23.7	20	J3

Sample Duplicate

L733743-67

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.0	0.0575	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-79

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	6.5	11	90	10.6	82	90 - 110	J6	3.7	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Nitrate-Nitrite by Method 353.2
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/19/2014 3:38:00 AM
 Instrument ID: LACHAT5
 Sample Numbers: L733743-80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755261
 Analyst: 578

Sample Duplicate

L733743-88

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	<0.0197	<0.0197		20	

Sample Duplicate

L733743-90

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.0	0.0608	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-99

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	0.0	2.23	44.6	2.29	45.8	90 - 110	J6	2.65	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Nitrate-Nitrite by Method 353.2
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/20/2014 10:46:00 AM
 Instrument ID: LACHAT5
 Sample Numbers: L733743-101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -112, -113, -114, -115, -116, -117, -118, -119, -120

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755577
 Analyst: 578

Sample Duplicate

L733743-110

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	<0.0197	<0.0197		20	

Sample Duplicate

L733743-119

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.36	0.365	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-120

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	0.0	4.49	89.8	4.51	90.2	90 - 110		0.44	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Nitrate-Nitrite by Method 353.2
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/20/2014 9:27:00 AM
 Instrument ID: LACHAT5
 Sample Numbers: L733743-121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755578
 Analyst: 578

Sample Duplicate

L733743-130

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.35	0.418	18.2	20	

Sample Duplicate

L733743-139

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.0	0.0266	0	20	

Matrix Spike / Matrix Spike Duplicate

L733743-140

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	0.0	4.53	90.6	4.56	91.2	90 - 110		0.66	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Nitrate-Nitrite by Method 353.2
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/20/2014 2:03:00 AM
 Instrument ID: LACHAT5
 Sample Numbers: L733743-141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158, -159

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG755581
 Analyst: 578

Sample Duplicate

L733743-150

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	0.0	0.0414	0	20	

Sample Duplicate

L733743-159

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	<0.0197	<0.0197		20	

Matrix Spike / Matrix Spike Duplicate

L733743-160

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	0.0	4.41	88.2	4.56	91.2	90 - 110	J6	3.34	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Nitrate-Nitrite by Method 353.2			Matrix:	Water - mg/L
Project No:	TX000836.0008.00004			EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM			Analytic Batch:	WG755868
Collection Date:	11/11/2014			Analyst:	183
Analysis Date:	11/20/2014 4:27:00 AM				
Instrument ID:	LACHAT5				
Sample Numbers:	L733743-111				

Sample Duplicate

L733884-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	2	14	13.82	0	20	

Sample Duplicate

L733889-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	5	21	21.9	4.65	20	

Matrix Spike / Matrix Spike Duplicate

L733605-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	0.31	5.31	100	5.31	100	90 - 110		0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754846
Analysis Date:	11/18/2014 2:28:00 PM	Analyst:	36
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8450	96	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8430	95.8	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD % RPD	Control RPD Limits	Control RPD Qual
Dissolved Solids	1	8800	8450	96	8430	95.8	85 - 115	0.24	5		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754847
Analysis Date:	11/18/2014 3:21:00 PM	Analyst:	36
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-10, -11, -12, -13, -14, -15		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8920	101	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8650	98.3	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Dissolved Solids	1	8800	8920	101	8650	98.3	85 - 115	3.07	5	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755020**
 Analysis Date: 11/18/2014 3:38:00 PM Analyst: 36
 Instrument ID: WETBAL2
 Sample Numbers: L733743-104, -107, -111, -114, -117, -119, -120, -121, -125, -126, -127, -128, -129, -131, -132, -139, -141, -142, -143

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8460	96.1	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8320	94.5	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Dissolved Solids	1	8800	8460	96.1	8320	94.5	85 - 115	1.67	5	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755137**
 Analysis Date: 11/19/2014 2:38:00 PM Analyst: 36
 Instrument ID: WETBAL1
 Sample Numbers: L733743-25, -26, -29, -34, -38, -40, -43, -44, -45, -48, -52, -53, -57, -59, -60, -63, -66, -147, -158, -159

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8470	96.2	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8530	96.9	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD % RPD	Control RPD Limits	Control RPD Qual
Dissolved Solids	1	8800	8470	96.2	8530	96.9	85 - 115	0.71	5		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755139**
 Analysis Date: 11/19/2014 3:35:00 PM Analyst: 36
 Instrument ID: WETBAL1
 Sample Numbers: L733743-69, -70, -71, -72, -73, -74, -77, -80, -81, -82, -83, -84, -85, -88, -91, -92, -98, -100, -101

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8630	98.1	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8620	98	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD % RPD	Control RPD Limits	Control RPD Qual
Dissolved Solids	1	8800	8630	98.1	8620	98	85 - 115	0.12	5		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755145
Analysis Date:	11/19/2014 3:23:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-102, -103, -105, -106, -108, -109, -110, -112, -113, -115		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8610	97.8	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8600	97.7	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD	RPD Limits	Qual
Dissolved Solids	1	8800	8610	97.8	8600	97.7	85 - 115	0.12	5		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755146
Analysis Date:	11/20/2014 9:06:00 AM	Analyst:	519
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-116, -118, -122, -123, -124, -130, -133, -134, -135, -136		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	7970	90.6	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8350	94.9	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Dissolved Solids	1	8800	7970	90.6	8350	94.9	85 - 115	4.66	5	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755343**
 Analysis Date: 11/20/2014 2:59:00 PM Analyst: 36
 Instrument ID: WETBAL1
 Sample Numbers: L733743-27, -28, -30, -31, -137, -138, -140, -144, -145, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -16

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8520	96.8	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8580	97.5	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD	RPD Limits	Qual
Dissolved Solids	1	8800	8520	96.8	8580	97.5	85 - 115	0.7	5		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755344**
 Analysis Date: 11/20/2014 2:45:00 PM Analyst: 36
 Instrument ID: WETBAL1
 Sample Numbers: L733743-32, -35, -36, -37, -39, -46, -47, -54, -55, -56, -58, -61, -62, -67, -78, -79, -86, -87, -90, -93

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8690	98.8	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8520	96.8	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD	RPD Limits	Qual
Dissolved Solids	1	8800	8690	98.8	8520	96.8	85 - 115	1.98	5		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755345
Analysis Date:	11/20/2014 3:21:00 PM	Analyst:	519
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-94, -95, -96, -97, -99		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8740	99.3	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8710	99	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD % RPD	Control RPD Limits	Control RPD Qual
Dissolved Solids	1	8800	8740	99.3	8710	99	85 - 115	0.34	5		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756114
Analysis Date:	11/22/2014 3:47:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-75		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8640	98.2	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8620	98	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD % RPD	Control RPD Limits	Control RPD Qual
Dissolved Solids	1	8800	8640	98.2	8620	98	85 - 115	0.23	5		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754846
Analysis Date:	11/18/2014 2:28:00 PM	Analyst:	36
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09		

Sample Duplicate

L733699-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	448	448	0	5	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754847
Analysis Date:	11/18/2014 3:21:00 PM	Analyst:	36
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-10, -11, -12, -13, -14, -15		

Sample Duplicate

L733743-10

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	3385	3375	0.3	5	

Sample Duplicate

L733851-20

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	1228	1278	3.99	5	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755020**
 Analysis Date: 11/18/2014 3:38:00 PM Analyst: 36
 Instrument ID: WETBAL2
 Sample Numbers: L733743-104, -107, -111, -114, -117, -119, -120, -121, -125, -126, -127, -128, -129, -131, -132, -139, -141, -142, -143

Sample Duplicate

L733743-104

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	3385	3415	0.88	5	

Sample Duplicate

L733743-146

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	1280	1307.5	2.13	5	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755137
Analysis Date:	11/19/2014 2:38:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-25, -26, -29, -34, -38, -40, -43, -44, -45, -48, -52, -53, -57, -59, -60, -63, -66, -147, -158, -159		

Sample Duplicate

L733743-147

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	1260	1240	1.6	5	

Sample Duplicate

L733743-66

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	5150	5280	2.49	5	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755139**
 Analysis Date: 11/19/2014 3:35:00 PM Analyst: 36
 Instrument ID: WETBAL1
 Sample Numbers: L733743-69, -70, -71, -72, -73, -74, -77, -80, -81, -82, -83, -84, -85, -88, -91, -92, -98, -100, -101

Sample Duplicate

L733743-100

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	2340	2330	0.43	5	

Sample Duplicate

L733743-98

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	3045	2995	1.66	5	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755145
Analysis Date:	11/19/2014 3:23:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-102, -103, -105, -106, -108, -109, -110, -112, -113, -115		

Sample Duplicate

L733743-102

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	2055	2030	1.22	5	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755146
Analysis Date:	11/20/2014 9:06:00 AM	Analyst:	519
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-116, -118, -122, -123, -124, -130, -133, -134, -135, -136		

Sample Duplicate

L733743-116

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	1238	1272	2.71	5	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 **Analytic Batch: WG755343**
Analysis Date: 11/20/2014 2:59:00 PM Analyst: 36
Instrument ID: WETBAL1
Sample Numbers: L733743-27, -28, -30, -31, -137, -138, -140, -144, -145, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -16

Sample Duplicate

L733743-137

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	1870	1875	0.27	5	

Sample Duplicate

L733743-31

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	32000	32240	0.75	5	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Total Dissolved Solids by Method 2540 C-2011
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755344**
 Analysis Date: 11/20/2014 2:45:00 PM Analyst: 36
 Instrument ID: WETBAL1
 Sample Numbers: L733743-32, -35, -36, -37, -39, -46, -47, -54, -55, -56, -58, -61, -62, -67, -78, -79, -86, -87, -90, -93

Sample Duplicate

L733743-32

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	6630	6620	0.15	5	

Sample Duplicate

L733743-93

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	4730	4820	1.88	5	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755345
Analysis Date:	11/20/2014 3:21:00 PM	Analyst:	519
Instrument ID:	WETBAL2		
Sample Numbers:	L733743-94, -95, -96, -97, -99		

Sample Duplicate

L733851-06

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	433	447	3.18	5	

Sample Duplicate

L733902-04

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	384	391	1.81	5	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756114
Analysis Date:	11/22/2014 3:47:00 PM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L733743-75		

Sample Duplicate

L733743-75

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	<2.82	<2.82		5	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Mercury by Method 7470A		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754885
Analysis Date:	11/18/2014 7:22:00 AM	Analyst:	657
Instrument ID:	CVAA3	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -144, -148, -154, -155, -159		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Mercury	7439-97-6	< 0.200	< 0.0490	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury	1	3	3.0056	100	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury	1	3	2.9888	100	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD	RPD Limits	Qual
Mercury	1	3	3.0056	100	2.9888	100	85 - 115	1	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Mercury by Method 7470A		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754886
Analysis Date:	11/18/2014 8:55:00 AM	Analyst:	657
Instrument ID:	CVAA3	Prep Date:	11/15/2014
Sample Numbers:	L733743-31, -55, -69, -77, -79, -91, -92, -93, -94, -95, -96, -98, -100, -102, -104, -107, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Mercury	7439-97-6	< 0.200	< 0.0490	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury	1	3	3.0649	102	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury	1	3	3.0201	101	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD
Mercury	1	3	3.0649	102	3.0201	101	85 - 115	1	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Mercury by Method 7470A		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754885
Analysis Date:	11/18/2014 7:22:00 AM	Analyst:	657
Instrument ID:	CVAA3	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -144, -148, -154, -155, -159		

Serial Dilution

L733743-15

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Mercury	5	<0.049	<0.245		10	

Matrix Spike / Matrix Spike Duplicate

L733743-15

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Mercury	1	3	0.0327	2.4987	82	2.4645	81	80 - 120	1	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Mercury by Method 7470A		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754886
Analysis Date:	11/18/2014 8:55:00 AM	Analyst:	657
Instrument ID:	CVAA3	Prep Date:	11/15/2014
Sample Numbers:	L733743-31, -55, -69, -77, -79, -91, -92, -93, -94, -95, -96, -98, -100, -102, -104, -107, -160		

Serial Dilution

L733743-94

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Mercury	5	<0.049	<0.245		10	

Matrix Spike / Matrix Spike Duplicate

L733743-94

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
Mercury	1	3	0.0296	3.1690	105	3.0273	100	80 - 120		5	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755200
Analysis Date:	11/18/2014 5:20:00 PM	Analyst:	117
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	3.06	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	< 0.360	
Boron	7440-42-8	< 20.0	10.9	B
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	< 46.0	
Chromium	7440-47-3	< 1.00	< 0.540	
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	< 0.520	
Iron	7439-89-6	< 100	19.2	
Lead	7439-92-1	< 2.00	< 0.240	
Manganese	7439-96-5	< 5.00	0.380	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	1.03	B
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755201
Analysis Date:	11/20/2014 6:48:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	17.0	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	0.403	
Boron	7440-42-8	< 20.0	2.03	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	144	
Chromium	7440-47-3	1.6	1.6	B
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	1.09	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	< 0.240	
Manganese	7439-96-5	< 5.00	0.845	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	1.22	B
Potassium	7440-09-7	< 1000	245	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	324	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	7.2	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020

Project No: TX000836.0008.00004

Project: Navajo Refining Company - Artesia, NM

Collection Date: 11/11/2014

Analysis Date: 11/25/2014 1:15:00 AM

Instrument ID: ICPMS8

Sample Numbers: L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118

Matrix: Water - ug/L

EPA ID: TN00003

Analytic Batch: WG755204

Analyst: 664

Prep Date: 11/18/2014

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	12.0	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	< 0.360	
Boron	7440-42-8	< 20.0	< 1.5	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	< 46.0	
Chromium	7440-47-3	< 1.00	< 0.540	
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	< 0.520	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	0.639	
Manganese	7439-96-5	< 5.00	< 0.250	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	< 0.350	
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020

Project No: TX000836.0008.00004

Project: Navajo Refining Company - Artesia, NM

Collection Date: 11/11/2014

Analysis Date: 12/1/2014 4:05:00 PM

Instrument ID: ICPMS8

Sample Numbers: L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138

Matrix: Water - ug/L

EPA ID: TN00003

Analytic Batch: **WG755205**

Analyst: 664

Prep Date: 11/18/2014

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	2.25	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	0.405	
Boron	7440-42-8	< 20.0	3.11	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	< 46.0	
Chromium	7440-47-3	< 1.00	< 0.540	
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	< 0.520	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	< 0.240	
Manganese	7439-96-5	< 5.00	< 0.250	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	< 0.350	
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	0.564	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020

Project No: TX000836.0008.00004

Project: Navajo Refining Company - Artesia, NM

Collection Date: 11/11/2014

Analysis Date: 12/1/2014 6:00:00 PM

Instrument ID: ICPMS8

Sample Numbers: L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158

Matrix: Water - ug/L

EPA ID: TN00003

Analytic Batch: WG755207

Analyst: 117

Prep Date: 11/18/2014

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	15.0	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	< 0.360	
Boron	7440-42-8	< 20.0	4.87	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	49.1	
Chromium	7440-47-3	< 1.00	< 0.540	
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	< 0.520	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	< 0.240	
Manganese	7439-96-5	< 5.00	< 0.250	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	< 0.350	
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755208
Analysis Date:	11/18/2014 4:01:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	2.69	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	< 0.360	
Boron	7440-42-8	< 20.0	< 1.5	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	< 46.0	
Chromium	7440-47-3	< 1.00	< 0.540	
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	< 0.520	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	< 0.240	
Manganese	7439-96-5	< 5.00	< 0.250	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	< 0.350	
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755209
Analysis Date:	11/19/2014 9:15:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	10.7	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	0.778	
Boron	7440-42-8	< 20.0	< 1.5	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	62.5	
Chromium	7440-47-3	< 1.00	0.582	B
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	0.666	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	1.31	B
Manganese	7439-96-5	< 5.00	< 0.250	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	0.538	
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755211
Analysis Date:	11/20/2014 5:49:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-95, -96, -97, -98, -99, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Aluminum	7429-90-5	< 100	4.19	
Arsenic	7440-38-2	< 2.00	< 0.250	
Barium	7440-39-3	< 5.00	< 0.360	
Boron	7440-42-8	< 20.0	< 1.5	
Cadmium	7440-43-9	< 1.00	< 0.160	
Calcium	7440-70-2	< 1000	< 46.0	
Chromium	7440-47-3	< 1.00	< 0.540	B
Cobalt	7440-48-4	< 2.00	< 0.260	
Copper	7440-50-8	< 5.00	< 0.520	
Iron	7439-89-6	< 100	< 15.0	
Lead	7439-92-1	< 2.00	< 0.240	
Manganese	7439-96-5	< 5.00	< 0.250	
Molybdenum	7439-98-7	< 5.00	< 0.140	
Nickel	7440-02-0	< 2.00	< 0.350	
Potassium	7440-09-7	< 1000	< 37.0	
Selenium	7782-49-2	< 2.00	< 0.380	
Silver	7440-22-4	< 2.00	< 0.310	
Sodium	7440-23-5	< 1000	< 110	
Uranium	7440-61-1	< 10.0	< 0.330	
Vanadium	7440-62-2	< 5.00	< 0.180	
Zinc	7440-66-6	< 25.0	< 2.56	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755434
Analysis Date:	11/20/2014 7:41:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/19/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Aluminum,Dissolved	7429-90-5	< 100	< 2.00	
Arsenic,Dissolved	7440-38-2	< 2.00	< 0.250	
Barium,Dissolved	7440-39-3	< 5.00	< 0.360	
Boron,Dissolved	7440-42-8	< 20.0	< 1.5	
Cadmium,Dissolved	7440-43-9	< 1.00	< 0.160	
Calcium,Dissolved	7440-70-2	< 1000	< 46.0	
Chromium,Dissolved	7440-47-3	< 1.00	0.615	B
Cobalt,Dissolved	7440-48-4	< 2.00	< 0.260	
Copper,Dissolved	7440-50-8	< 5.00	< 0.520	
Iron,Dissolved	7439-89-6	< 100	< 15.0	
Lead,Dissolved	7439-92-1	< 2.00	< 0.240	
Manganese,Dissolved	7439-96-5	< 5.00	< 0.250	
Molybdenum,Dissolved	7439-98-7	< 5.00	< 0.140	
Nickel,Dissolved	7440-02-0	< 2.00	< 0.350	
Potassium,Dissolved	7440-09-7	< 1000	< 37.0	
Selenium,Dissolved	7782-49-2	< 2.00	0.579	
Silver,Dissolved	7440-22-4	< 2.00	< 0.310	
Sodium,Dissolved	7440-23-5	< 1000	< 110	
Uranium,Dissolved	7440-61-1	< 10.0	< 0.330	
Vanadium,Dissolved	7440-62-2	< 5.00	< 0.180	
Zinc,Dissolved	7440-66-6	< 25.0	< 2.56	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020			Matrix:	Water - ug/L
Project No:	TX000836.0008.00004			EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM			Analytic Batch:	WG756145
Collection Date:	11/11/2014			Analyst:	117
Analysis Date:	11/24/2014 6:51:00 PM			Prep Date:	11/21/2014
Instrument ID:	ICPMS8				
Sample Numbers:	L733743-33, -35, -36, -37, -39, -43, -44, -45				

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Chromium	7440-47-3	< 1.00	< 0.540	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chromium	1	50	50.382	101	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chromium	1	50	51.022	102	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD
Chromium	1	50	50.382	101	51.022	102	85 - 115	1	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/18/2014 5:20:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755200
 Analyst: 117
 Prep Date: 11/18/2014

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	472.28	94	70 - 130	
Arsenic	1	50	48.889	98	85 - 115	
Barium	1	50	44.982	90	85 - 115	
Boron	1	50	52.927	106	70 - 130	
Cadmium	1	50	45.273	91	85 - 115	
Calcium	1	5000	4865.4	97	70 - 130	
Chromium	1	50	50.624	101	85 - 115	
Cobalt	1	50	51.685	103	85 - 115	
Copper	1	50	52.210	104	85 - 115	
Iron	1	500	509.96	102	85 - 115	
Lead	1	50	51.977	104	85 - 115	
Manganese	1	50	50.282	101	85 - 115	
Molybdenum	1	50	51.409	103	85 - 115	
Nickel	1	50	51.413	103	85 - 115	
Potassium	1	5000	4667.2	93	70 - 130	
Selenium	1	50	44.589	89	85 - 115	
Silver	1	50	47.694	95	85 - 115	
Sodium	1	5000	5022.2	100	70 - 130	
Uranium	1	50	50.716	101	70 - 130	
Vanadium	1	50	48.967	98	85 - 115	
Zinc	1	50	48.977	98	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/18/2014 5:20:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755200
 Analyst: 117
 Prep Date: 11/18/2014

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	508.47	102	70 - 130	
Arsenic	1	50	49.444	99	85 - 115	
Barium	1	50	47.486	95	85 - 115	
Boron	1	50	53.921	108	70 - 130	
Cadmium	1	50	47.791	96	85 - 115	
Calcium	1	5000	5032.1	101	70 - 130	
Chromium	1	50	52.432	105	85 - 115	
Cobalt	1	50	52.373	105	85 - 115	
Copper	1	50	52.320	105	85 - 115	
Iron	1	500	513.35	103	85 - 115	
Lead	1	50	52.909	106	85 - 115	
Manganese	1	50	51.072	102	85 - 115	
Molybdenum	1	50	51.418	103	85 - 115	
Nickel	1	50	53.159	106	85 - 115	
Potassium	1	5000	4842.4	97	70 - 130	
Selenium	1	50	45.938	92	85 - 115	
Silver	1	50	48.870	98	85 - 115	
Sodium	1	5000	5216.4	104	70 - 130	
Uranium	1	50	52.270	105	70 - 130	
Vanadium	1	50	50.193	100	85 - 115	
Zinc	1	50	51.057	102	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/18/2014 5:20:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755200
 Analyst: 117
 Prep Date: 11/18/2014

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Aluminum	1	500	472.28	94	508.47	102	70 - 130	7	20	
Arsenic	1	50	48.889	98	49.444	99	85 - 115	1	20	
Barium	1	50	44.982	90	47.486	95	85 - 115	5	20	
Boron	1	50	52.927	106	53.921	108	70 - 130	2	20	
Cadmium	1	50	45.273	91	47.791	96	85 - 115	5	20	
Calcium	1	5000	4865.4	97	5032.1	101	70 - 130	3	20	
Chromium	1	50	50.624	101	52.432	105	85 - 115	4	20	
Cobalt	1	50	51.685	103	52.373	105	85 - 115	1	20	
Copper	1	50	52.210	104	52.320	105	85 - 115	0	20	
Iron	1	500	509.96	102	513.35	103	85 - 115	1	20	
Lead	1	50	51.977	104	52.909	106	85 - 115	2	20	
Manganese	1	50	50.282	101	51.072	102	85 - 115	2	20	
Molybdenum	1	50	51.409	103	51.418	103	85 - 115	0	20	
Nickel	1	50	51.413	103	53.159	106	85 - 115	3	20	
Potassium	1	5000	4667.2	93	4842.4	97	70 - 130	4	20	
Selenium	1	50	44.589	89	45.938	92	85 - 115	3	20	
Silver	1	50	47.694	95	48.870	98	85 - 115	2	20	
Sodium	1	5000	5022.2	100	5216.4	104	70 - 130	4	20	
Uranium	1	50	50.716	101	52.270	105	70 - 130	3	20	
Vanadium	1	50	48.967	98	50.193	100	85 - 115	2	20	
Zinc	1	50	48.977	98	51.057	102	85 - 115	4	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/20/2014 6:48:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755201
 Analyst: 664
 Prep Date: 11/18/2014

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	492.67	99	70 - 130	
Arsenic	1	50	49.398	99	85 - 115	
Barium	1	50	49.956	100	85 - 115	
Boron	1	50	46.804	94	70 - 130	
Cadmium	1	50	49.242	98	85 - 115	
Calcium	1	5000	5063.1	101	70 - 130	
Chromium	1	50	52.621	105	85 - 115	
Cobalt	1	50	50.939	102	85 - 115	
Copper	1	50	51.111	102	85 - 115	
Iron	1	500	499.19	100	85 - 115	
Lead	1	50	51.613	103	85 - 115	
Manganese	1	50	50.350	101	85 - 115	
Molybdenum	1	50	51.097	102	85 - 115	
Nickel	1	50	51.195	102	85 - 115	
Potassium	1	5000	4981.3	100	70 - 130	
Selenium	1	50	44.224	88	85 - 115	
Silver	1	50	49.636	99	85 - 115	
Sodium	1	5000	5399.3	108	70 - 130	
Uranium	1	50	51.042	102	70 - 130	
Vanadium	1	50	50.865	102	85 - 115	
Zinc	1	50	49.717	99	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/20/2014 6:48:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755201
 Analyst: 664
 Prep Date: 11/18/2014

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	532.59	107	70 - 130	
Arsenic	1	50	49.912	100	85 - 115	
Barium	1	50	50.853	102	85 - 115	
Boron	1	50	48.032	96	70 - 130	
Cadmium	1	50	50.399	101	85 - 115	
Calcium	1	5000	4976.7	100	70 - 130	
Chromium	1	50	53.721	107	85 - 115	
Cobalt	1	50	51.258	103	85 - 115	
Copper	1	50	52.238	104	85 - 115	
Iron	1	500	500.21	100	85 - 115	
Lead	1	50	52.446	105	85 - 115	
Manganese	1	50	50.743	101	85 - 115	
Molybdenum	1	50	51.664	103	85 - 115	
Nickel	1	50	52.036	104	85 - 115	
Potassium	1	5000	5121.0	102	70 - 130	
Selenium	1	50	51.183	102	85 - 115	
Silver	1	50	50.742	101	85 - 115	
Sodium	1	5000	5361.9	107	70 - 130	
Uranium	1	50	51.840	104	70 - 130	
Vanadium	1	50	52.174	104	85 - 115	
Zinc	1	50	49.084	98	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/20/2014 6:48:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49

Matrix: Water - ug/L
 EPA ID: TN00003
 Analytic Batch: WG755201
 Analyst: 664
 Prep Date: 11/18/2014

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Aluminum	1	500	492.67	99	532.59	107	70 - 130	8	20	
Arsenic	1	50	49.398	99	49.912	100	85 - 115	1	20	
Barium	1	50	49.956	100	50.853	102	85 - 115	2	20	
Boron	1	50	46.804	94	48.032	96	70 - 130	3	20	
Cadmium	1	50	49.242	98	50.399	101	85 - 115	2	20	
Calcium	1	5000	5063.1	101	4976.7	100	70 - 130	2	20	
Chromium	1	50	52.621	105	53.721	107	85 - 115	2	20	
Cobalt	1	50	50.939	102	51.258	103	85 - 115	1	20	
Copper	1	50	51.111	102	52.238	104	85 - 115	2	20	
Iron	1	500	499.19	100	500.21	100	85 - 115	0	20	
Lead	1	50	51.613	103	52.446	105	85 - 115	2	20	
Manganese	1	50	50.350	101	50.743	101	85 - 115	1	20	
Molybdenum	1	50	51.097	102	51.664	103	85 - 115	1	20	
Nickel	1	50	51.195	102	52.036	104	85 - 115	2	20	
Potassium	1	5000	4981.3	100	5121.0	102	70 - 130	3	20	
Selenium	1	50	44.224	88	51.183	102	85 - 115	15	20	
Silver	1	50	49.636	99	50.742	101	85 - 115	2	20	
Sodium	1	5000	5399.3	108	5361.9	107	70 - 130	1	20	
Uranium	1	50	51.042	102	51.840	104	70 - 130	2	20	
Vanadium	1	50	50.865	102	52.174	104	85 - 115	3	20	
Zinc	1	50	49.717	99	49.084	98	85 - 115	1	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/25/2014 1:15:00 AM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755204
 Analyst: 664
 Prep Date: 11/18/2014

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	509.26	102	70 - 130	
Arsenic	1	50	48.045	96	85 - 115	
Barium	1	50	49.350	99	85 - 115	
Boron	1	50	48.565	97	70 - 130	
Cadmium	1	50	48.641	97	85 - 115	
Calcium	1	5000	4889.8	98	70 - 130	
Chromium	1	50	49.169	98	85 - 115	
Cobalt	1	50	48.854	98	85 - 115	
Copper	1	50	48.776	98	85 - 115	
Iron	1	500	486.36	97	85 - 115	
Lead	1	50	49.624	99	85 - 115	
Manganese	1	50	49.966	100	85 - 115	
Molybdenum	1	50	48.475	97	85 - 115	
Nickel	1	50	48.317	97	85 - 115	
Potassium	1	5000	4932.9	99	70 - 130	
Selenium	1	50	47.805	96	85 - 115	
Silver	1	50	52.504	105	85 - 115	
Sodium	1	5000	4939.6	99	70 - 130	
Uranium	1	50	48.274	97	70 - 130	
Vanadium	1	50	48.925	98	85 - 115	
Zinc	1	50	46.214	92	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/25/2014 1:15:00 AM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755204
 Analyst: 664
 Prep Date: 11/18/2014

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	517.26	103	70 - 130	
Arsenic	1	50	48.299	97	85 - 115	
Barium	1	50	51.282	103	85 - 115	
Boron	1	50	49.713	99	70 - 130	
Cadmium	1	50	49.093	98	85 - 115	
Calcium	1	5000	5050.3	101	70 - 130	
Chromium	1	50	50.076	100	85 - 115	
Cobalt	1	50	49.316	99	85 - 115	
Copper	1	50	49.004	98	85 - 115	
Iron	1	500	492.55	99	85 - 115	
Lead	1	50	49.097	98	85 - 115	
Manganese	1	50	50.166	100	85 - 115	
Molybdenum	1	50	47.997	96	85 - 115	
Nickel	1	50	48.666	97	85 - 115	
Potassium	1	5000	5007.1	100	70 - 130	
Selenium	1	50	48.254	97	85 - 115	
Silver	1	50	53.311	107	85 - 115	
Sodium	1	5000	4996.5	100	70 - 130	
Uranium	1	50	47.505	95	70 - 130	
Vanadium	1	50	49.520	99	85 - 115	
Zinc	1	50	47.364	95	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/25/2014 1:15:00 AM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118

Matrix: Water - ug/L
 EPA ID: TN00003
 Analytic Batch: WG755204
 Analyst: 664
 Prep Date: 11/18/2014

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Aluminum	1	500	509.26	102	517.26	103	70 - 130	2	20	
Arsenic	1	50	48.045	96	48.299	97	85 - 115	1	20	
Barium	1	50	49.350	99	51.282	103	85 - 115	4	20	
Boron	1	50	48.565	97	49.713	99	70 - 130	2	20	
Cadmium	1	50	48.641	97	49.093	98	85 - 115	1	20	
Calcium	1	5000	4889.8	98	5050.3	101	70 - 130	3	20	
Chromium	1	50	49.169	98	50.076	100	85 - 115	2	20	
Cobalt	1	50	48.854	98	49.316	99	85 - 115	1	20	
Copper	1	50	48.776	98	49.004	98	85 - 115	0	20	
Iron	1	500	486.36	97	492.55	99	85 - 115	1	20	
Lead	1	50	49.624	99	49.097	98	85 - 115	1	20	
Manganese	1	50	49.966	100	50.166	100	85 - 115	0	20	
Molybdenum	1	50	48.475	97	47.997	96	85 - 115	1	20	
Nickel	1	50	48.317	97	48.666	97	85 - 115	1	20	
Potassium	1	5000	4932.9	99	5007.1	100	70 - 130	1	20	
Selenium	1	50	47.805	96	48.254	97	85 - 115	1	20	
Silver	1	50	52.504	105	53.311	107	85 - 115	2	20	
Sodium	1	5000	4939.6	99	4996.5	100	70 - 130	1	20	
Uranium	1	50	48.274	97	47.505	95	70 - 130	2	20	
Vanadium	1	50	48.925	98	49.520	99	85 - 115	1	20	
Zinc	1	50	46.214	92	47.364	95	85 - 115	2	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 12/1/2014 4:05:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755205
 Analyst: 664
 Prep Date: 11/18/2014

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	522.25	104	70 - 130	
Arsenic	1	50	50.527	101	85 - 115	
Barium	1	50	52.069	104	85 - 115	
Boron	1	50	50.371	101	70 - 130	
Cadmium	1	50	49.916	100	85 - 115	
Calcium	1	5000	5320.4	106	70 - 130	
Chromium	1	50	54.405	109	85 - 115	
Cobalt	1	50	53.532	107	85 - 115	
Copper	1	50	53.337	107	85 - 115	
Iron	1	500	528.83	106	85 - 115	
Lead	1	50	53.082	106	85 - 115	
Manganese	1	50	53.902	108	85 - 115	
Molybdenum	1	50	52.928	106	85 - 115	
Nickel	1	50	52.895	106	85 - 115	
Potassium	1	5000	5101.1	102	70 - 130	
Selenium	1	50	48.564	97	85 - 115	
Silver	1	50	49.387	99	85 - 115	
Sodium	1	5000	5176.3	104	70 - 130	
Uranium	1	50	52.052	104	70 - 130	
Vanadium	1	50	52.271	105	85 - 115	
Zinc	1	50	51.968	104	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 12/1/2014 4:05:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138

Matrix: Water - ug/L
 EPA ID: TN00003
 Analytic Batch: WG755205
 Analyst: 664
 Prep Date: 11/18/2014

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	500.31	100	70 - 130	
Arsenic	1	50	50.182	100	85 - 115	
Barium	1	50	49.796	100	85 - 115	
Boron	1	50	50.168	100	70 - 130	
Cadmium	1	50	48.645	97	85 - 115	
Calcium	1	5000	5105.0	102	70 - 130	
Chromium	1	50	52.246	104	85 - 115	
Cobalt	1	50	51.938	104	85 - 115	
Copper	1	50	52.101	104	85 - 115	
Iron	1	500	513.24	103	85 - 115	
Lead	1	50	51.479	103	85 - 115	
Manganese	1	50	51.946	104	85 - 115	
Molybdenum	1	50	51.604	103	85 - 115	
Nickel	1	50	51.528	103	85 - 115	
Potassium	1	5000	4919.2	98	70 - 130	
Selenium	1	50	47.094	94	85 - 115	
Silver	1	50	48.096	96	85 - 115	
Sodium	1	5000	5047.1	101	70 - 130	
Uranium	1	50	50.238	100	70 - 130	
Vanadium	1	50	50.875	102	85 - 115	
Zinc	1	50	51.085	102	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 12/1/2014 4:05:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138

Matrix: Water - ug/L
 EPA ID: TN00003
 Analytic Batch: WG755205
 Analyst: 664
 Prep Date: 11/18/2014

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Aluminum	1	500	522.25	104	500.31	100	70 - 130	4	20	
Arsenic	1	50	50.527	101	50.182	100	85 - 115	1	20	
Barium	1	50	52.069	104	49.796	100	85 - 115	4	20	
Boron	1	50	50.371	101	50.168	100	70 - 130	0	20	
Cadmium	1	50	49.916	100	48.645	97	85 - 115	3	20	
Calcium	1	5000	5320.4	106	5105.0	102	70 - 130	4	20	
Chromium	1	50	54.405	109	52.246	104	85 - 115	4	20	
Cobalt	1	50	53.532	107	51.938	104	85 - 115	3	20	
Copper	1	50	53.337	107	52.101	104	85 - 115	2	20	
Iron	1	500	528.83	106	513.24	103	85 - 115	3	20	
Lead	1	50	53.082	106	51.479	103	85 - 115	3	20	
Manganese	1	50	53.902	108	51.946	104	85 - 115	4	20	
Molybdenum	1	50	52.928	106	51.604	103	85 - 115	3	20	
Nickel	1	50	52.895	106	51.528	103	85 - 115	3	20	
Potassium	1	5000	5101.1	102	4919.2	98	70 - 130	4	20	
Selenium	1	50	48.564	97	47.094	94	85 - 115	3	20	
Silver	1	50	49.387	99	48.096	96	85 - 115	3	20	
Sodium	1	5000	5176.3	104	5047.1	101	70 - 130	3	20	
Uranium	1	50	52.052	104	50.238	100	70 - 130	4	20	
Vanadium	1	50	52.271	105	50.875	102	85 - 115	3	20	
Zinc	1	50	51.968	104	51.085	102	85 - 115	2	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 12/1/2014 6:00:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755207
 Analyst: 117
 Prep Date: 11/18/2014

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	531.46	106	70 - 130	
Arsenic	1	50	49.720	99	85 - 115	
Barium	1	50	51.573	103	85 - 115	
Boron	1	50	53.294	107	70 - 130	
Cadmium	1	50	50.161	100	85 - 115	
Calcium	1	5000	5158.5	103	70 - 130	
Chromium	1	50	52.346	105	85 - 115	
Cobalt	1	50	51.891	104	85 - 115	
Copper	1	50	51.635	103	85 - 115	
Iron	1	500	511.66	102	85 - 115	
Lead	1	50	51.794	104	85 - 115	
Manganese	1	50	52.054	104	85 - 115	
Molybdenum	1	50	51.079	102	85 - 115	
Nickel	1	50	51.768	104	85 - 115	
Potassium	1	5000	5109.0	102	70 - 130	
Selenium	1	50	49.580	99	85 - 115	
Silver	1	50	48.574	97	85 - 115	
Sodium	1	5000	5111.9	102	70 - 130	
Uranium	1	50	50.880	102	70 - 130	
Vanadium	1	50	51.445	103	85 - 115	
Zinc	1	50	52.604	105	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 12/1/2014 6:00:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755207
 Analyst: 117
 Prep Date: 11/18/2014

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	514.76	103	70 - 130	
Arsenic	1	50	49.795	100	85 - 115	
Barium	1	50	49.983	100	85 - 115	
Boron	1	50	53.771	108	70 - 130	
Cadmium	1	50	48.851	98	85 - 115	
Calcium	1	5000	4908.7	98	70 - 130	
Chromium	1	50	51.847	104	85 - 115	
Cobalt	1	50	51.254	103	85 - 115	
Copper	1	50	51.054	102	85 - 115	
Iron	1	500	526.80	105	85 - 115	
Lead	1	50	51.262	103	85 - 115	
Manganese	1	50	51.238	102	85 - 115	
Molybdenum	1	50	51.282	103	85 - 115	
Nickel	1	50	50.805	102	85 - 115	
Potassium	1	5000	5029.1	101	70 - 130	
Selenium	1	50	46.277	93	85 - 115	
Silver	1	50	48.640	97	85 - 115	
Sodium	1	5000	5019.6	100	70 - 130	
Uranium	1	50	50.301	101	70 - 130	
Vanadium	1	50	50.146	100	85 - 115	
Zinc	1	50	50.020	100	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 12/1/2014 6:00:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755207
 Analyst: 117
 Prep Date: 11/18/2014

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Aluminum	1	500	531.46	106	514.76	103	70 - 130	3	20	
Arsenic	1	50	49.720	99	49.795	100	85 - 115	0	20	
Barium	1	50	51.573	103	49.983	100	85 - 115	3	20	
Boron	1	50	53.294	107	53.771	108	70 - 130	1	20	
Cadmium	1	50	50.161	100	48.851	98	85 - 115	3	20	
Calcium	1	5000	5158.5	103	4908.7	98	70 - 130	5	20	
Chromium	1	50	52.346	105	51.847	104	85 - 115	1	20	
Cobalt	1	50	51.891	104	51.254	103	85 - 115	1	20	
Copper	1	50	51.635	103	51.054	102	85 - 115	1	20	
Iron	1	500	511.66	102	526.80	105	85 - 115	3	20	
Lead	1	50	51.794	104	51.262	103	85 - 115	1	20	
Manganese	1	50	52.054	104	51.238	102	85 - 115	2	20	
Molybdenum	1	50	51.079	102	51.282	103	85 - 115	0	20	
Nickel	1	50	51.768	104	50.805	102	85 - 115	2	20	
Potassium	1	5000	5109.0	102	5029.1	101	70 - 130	2	20	
Selenium	1	50	49.580	99	46.277	93	85 - 115	7	20	
Silver	1	50	48.574	97	48.640	97	85 - 115	0	20	
Sodium	1	5000	5111.9	102	5019.6	100	70 - 130	2	20	
Uranium	1	50	50.880	102	50.301	101	70 - 130	1	20	
Vanadium	1	50	51.445	103	50.146	100	85 - 115	3	20	
Zinc	1	50	52.604	105	50.020	100	85 - 115	5	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/18/2014 4:01:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755208
 Analyst: 664
 Prep Date: 11/18/2014

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	500.56	100	70 - 130	
Arsenic	1	50	49.706	99	85 - 115	
Barium	1	50	48.167	96	85 - 115	
Boron	1	50	51.202	102	70 - 130	
Cadmium	1	50	48.140	96	85 - 115	
Calcium	1	5000	4966.7	99	70 - 130	
Chromium	1	50	51.037	102	85 - 115	
Cobalt	1	50	50.724	101	85 - 115	
Copper	1	50	50.304	101	85 - 115	
Iron	1	500	504.64	101	85 - 115	
Lead	1	50	50.254	101	85 - 115	
Manganese	1	50	50.464	101	85 - 115	
Molybdenum	1	50	50.621	101	85 - 115	
Nickel	1	50	50.771	102	85 - 115	
Potassium	1	5000	4799.5	96	70 - 130	
Selenium	1	50	46.435	93	85 - 115	
Silver	1	50	48.608	97	85 - 115	
Sodium	1	5000	4973.9	99	70 - 130	
Uranium	1	50	49.404	99	70 - 130	
Vanadium	1	50	50.354	101	85 - 115	
Zinc	1	50	48.614	97	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/18/2014 4:01:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755208
 Analyst: 664
 Prep Date: 11/18/2014

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	489.12	98	70 - 130	
Arsenic	1	50	50.605	101	85 - 115	
Barium	1	50	47.870	96	85 - 115	
Boron	1	50	50.112	100	70 - 130	
Cadmium	1	50	47.957	96	85 - 115	
Calcium	1	5000	4790.7	96	70 - 130	
Chromium	1	50	50.524	101	85 - 115	
Cobalt	1	50	50.940	102	85 - 115	
Copper	1	50	51.998	104	85 - 115	
Iron	1	500	514.52	103	85 - 115	
Lead	1	50	51.157	102	85 - 115	
Manganese	1	50	51.679	103	85 - 115	
Molybdenum	1	50	51.104	102	85 - 115	
Nickel	1	50	52.497	105	85 - 115	
Potassium	1	5000	4804.4	96	70 - 130	
Selenium	1	50	43.922	88	85 - 115	
Silver	1	50	48.563	97	85 - 115	
Sodium	1	5000	4957.9	99	70 - 130	
Uranium	1	50	50.394	101	70 - 130	
Vanadium	1	50	48.862	98	85 - 115	
Zinc	1	50	50.419	101	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/18/2014 4:01:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755208
 Analyst: 664
 Prep Date: 11/18/2014

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Aluminum	1	500	500.56	100	489.12	98	70 - 130	2	20	
Arsenic	1	50	49.706	99	50.605	101	85 - 115	2	20	
Barium	1	50	48.167	96	47.870	96	85 - 115	1	20	
Boron	1	50	51.202	102	50.112	100	70 - 130	2	20	
Cadmium	1	50	48.140	96	47.957	96	85 - 115	0	20	
Calcium	1	5000	4966.7	99	4790.7	96	70 - 130	4	20	
Chromium	1	50	51.037	102	50.524	101	85 - 115	1	20	
Cobalt	1	50	50.724	101	50.940	102	85 - 115	0	20	
Copper	1	50	50.304	101	51.998	104	85 - 115	3	20	
Iron	1	500	504.64	101	514.52	103	85 - 115	2	20	
Lead	1	50	50.254	101	51.157	102	85 - 115	2	20	
Manganese	1	50	50.464	101	51.679	103	85 - 115	2	20	
Molybdenum	1	50	50.621	101	51.104	102	85 - 115	1	20	
Nickel	1	50	50.771	102	52.497	105	85 - 115	3	20	
Potassium	1	5000	4799.5	96	4804.4	96	70 - 130	0	20	
Selenium	1	50	46.435	93	43.922	88	85 - 115	6	20	
Silver	1	50	48.608	97	48.563	97	85 - 115	0	20	
Sodium	1	5000	4973.9	99	4957.9	99	70 - 130	0	20	
Uranium	1	50	49.404	99	50.394	101	70 - 130	2	20	
Vanadium	1	50	50.354	101	48.862	98	85 - 115	3	20	
Zinc	1	50	48.614	97	50.419	101	85 - 115	4	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/19/2014 9:15:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755209
 Analyst: 664
 Prep Date: 11/18/2014

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	534.79	107	70 - 130	
Arsenic	1	50	47.388	95	85 - 115	
Barium	1	50	49.559	99	85 - 115	
Boron	1	50	40.440	81	70 - 130	
Cadmium	1	50	48.717	97	85 - 115	
Calcium	1	5000	5034.8	101	70 - 130	
Chromium	1	50	50.343	101	85 - 115	
Cobalt	1	50	48.380	97	85 - 115	
Copper	1	50	47.963	96	85 - 115	
Iron	1	500	488.12	98	85 - 115	
Lead	1	50	47.292	95	85 - 115	
Manganese	1	50	50.609	101	85 - 115	
Molybdenum	1	50	47.474	95	85 - 115	
Nickel	1	50	49.791	100	85 - 115	
Potassium	1	5000	4980.6	100	70 - 130	
Selenium	1	50	47.628	95	85 - 115	
Silver	1	50	51.256	103	85 - 115	
Sodium	1	5000	4995.9	100	70 - 130	
Uranium	1	50	45.941	92	70 - 130	
Vanadium	1	50	49.169	98	85 - 115	
Zinc	1	50	47.769	96	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/19/2014 9:15:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755209
 Analyst: 664
 Prep Date: 11/18/2014

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	523.89	105	70 - 130	
Arsenic	1	50	46.490	93	85 - 115	
Barium	1	50	51.481	103	85 - 115	
Boron	1	50	42.881	86	70 - 130	
Cadmium	1	50	47.506	95	85 - 115	
Calcium	1	5000	4773.6	95	70 - 130	
Chromium	1	50	48.917	98	85 - 115	
Cobalt	1	50	46.855	94	85 - 115	
Copper	1	50	46.937	94	85 - 115	
Iron	1	500	480.33	96	85 - 115	
Lead	1	50	46.780	94	85 - 115	
Manganese	1	50	48.618	97	85 - 115	
Molybdenum	1	50	46.001	92	85 - 115	
Nickel	1	50	47.302	95	85 - 115	
Potassium	1	5000	4830.3	97	70 - 130	
Selenium	1	50	50.047	100	85 - 115	
Silver	1	50	50.612	101	85 - 115	
Sodium	1	5000	4826.6	97	70 - 130	
Uranium	1	50	44.838	90	70 - 130	
Vanadium	1	50	47.661	95	85 - 115	
Zinc	1	50	46.786	94	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/19/2014 9:15:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94

Matrix: Water - ug/L
 EPA ID: TN00003
 Analytic Batch: WG755209
 Analyst: 664
 Prep Date: 11/18/2014

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
Aluminum	1	500	534.79	107	523.89	105	70 - 130		2	20
Arsenic	1	50	47.388	95	46.490	93	85 - 115		2	20
Barium	1	50	49.559	99	51.481	103	85 - 115		4	20
Boron	1	50	40.440	81	42.881	86	70 - 130		6	20
Cadmium	1	50	48.717	97	47.506	95	85 - 115		3	20
Calcium	1	5000	5034.8	101	4773.6	95	70 - 130		5	20
Chromium	1	50	50.343	101	48.917	98	85 - 115		3	20
Cobalt	1	50	48.380	97	46.855	94	85 - 115		3	20
Copper	1	50	47.963	96	46.937	94	85 - 115		2	20
Iron	1	500	488.12	98	480.33	96	85 - 115		2	20
Lead	1	50	47.292	95	46.780	94	85 - 115		1	20
Manganese	1	50	50.609	101	48.618	97	85 - 115		4	20
Molybdenum	1	50	47.474	95	46.001	92	85 - 115		3	20
Nickel	1	50	49.791	100	47.302	95	85 - 115		5	20
Potassium	1	5000	4980.6	100	4830.3	97	70 - 130		3	20
Selenium	1	50	47.628	95	50.047	100	85 - 115		5	20
Silver	1	50	51.256	103	50.612	101	85 - 115		1	20
Sodium	1	5000	4995.9	100	4826.6	97	70 - 130		3	20
Uranium	1	50	45.941	92	44.838	90	70 - 130		2	20
Vanadium	1	50	49.169	98	47.661	95	85 - 115		3	20
Zinc	1	50	47.769	96	46.786	94	85 - 115		2	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755211
Analysis Date:	11/20/2014 5:49:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-95, -96, -97, -98, -99, -160		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	528.12	106	70 - 130	
Arsenic	1	50	48.527	97	85 - 115	
Barium	1	50	50.406	101	85 - 115	
Boron	1	50	49.524	99	70 - 130	
Cadmium	1	50	50.463	101	85 - 115	
Calcium	1	5000	5022.7	100	70 - 130	
Chromium	1	50	51.403	103	85 - 115	
Cobalt	1	50	49.721	99	85 - 115	
Copper	1	50	49.932	100	85 - 115	
Iron	1	500	491.31	98	85 - 115	
Lead	1	50	50.968	102	85 - 115	
Manganese	1	50	51.683	103	85 - 115	
Molybdenum	1	50	49.408	99	85 - 115	
Nickel	1	50	50.191	100	85 - 115	
Potassium	1	5000	5071.5	101	70 - 130	
Selenium	1	50	47.191	94	85 - 115	
Silver	1	50	50.159	100	85 - 115	
Sodium	1	5000	4994.9	100	70 - 130	
Uranium	1	50	49.977	100	70 - 130	
Vanadium	1	50	51.021	102	85 - 115	
Zinc	1	50	48.766	98	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755211
Analysis Date:	11/20/2014 5:49:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-95, -96, -97, -98, -99, -160		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum	1	500	543.92	109	70 - 130	
Arsenic	1	50	50.834	102	85 - 115	
Barium	1	50	53.082	106	85 - 115	
Boron	1	50	52.064	104	70 - 130	
Cadmium	1	50	51.718	103	85 - 115	
Calcium	1	5000	5068.9	101	70 - 130	
Chromium	1	50	52.395	105	85 - 115	
Cobalt	1	50	51.760	104	85 - 115	
Copper	1	50	51.809	104	85 - 115	
Iron	1	500	511.25	102	85 - 115	
Lead	1	50	52.596	105	85 - 115	
Manganese	1	50	52.423	105	85 - 115	
Molybdenum	1	50	51.877	104	85 - 115	
Nickel	1	50	51.743	103	85 - 115	
Potassium	1	5000	5244.6	105	70 - 130	
Selenium	1	50	47.430	95	85 - 115	
Silver	1	50	51.510	103	85 - 115	
Sodium	1	5000	5139.8	103	70 - 130	
Uranium	1	50	52.169	104	70 - 130	
Vanadium	1	50	52.551	105	85 - 115	
Zinc	1	50	50.518	101	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755211
Analysis Date:	11/20/2014 5:49:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-95, -96, -97, -98, -99, -160		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
Aluminum	1	500	528.12	106	543.92	109	70 - 130		3	20
Arsenic	1	50	48.527	97	50.834	102	85 - 115		5	20
Barium	1	50	50.406	101	53.082	106	85 - 115		5	20
Boron	1	50	49.524	99	52.064	104	70 - 130		5	20
Cadmium	1	50	50.463	101	51.718	103	85 - 115		2	20
Calcium	1	5000	5022.7	100	5068.9	101	70 - 130		1	20
Chromium	1	50	51.403	103	52.395	105	85 - 115		2	20
Cobalt	1	50	49.721	99	51.760	104	85 - 115		4	20
Copper	1	50	49.932	100	51.809	104	85 - 115		4	20
Iron	1	500	491.31	98	511.25	102	85 - 115		4	20
Lead	1	50	50.968	102	52.596	105	85 - 115		3	20
Manganese	1	50	51.683	103	52.423	105	85 - 115		1	20
Molybdenum	1	50	49.408	99	51.877	104	85 - 115		5	20
Nickel	1	50	50.191	100	51.743	103	85 - 115		3	20
Potassium	1	5000	5071.5	101	5244.6	105	70 - 130		3	20
Selenium	1	50	47.191	94	47.430	95	85 - 115		1	20
Silver	1	50	50.159	100	51.510	103	85 - 115		3	20
Sodium	1	5000	4994.9	100	5139.8	103	70 - 130		3	20
Uranium	1	50	49.977	100	52.169	104	70 - 130		4	20
Vanadium	1	50	51.021	102	52.551	105	85 - 115		3	20
Zinc	1	50	48.766	98	50.518	101	85 - 115		4	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755434
Analysis Date:	11/20/2014 7:41:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/19/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum,Dissolved	1	500	506.04	101	70 - 130	
Arsenic,Dissolved	1	50	48.578	97	85 - 115	
Barium,Dissolved	1	50	47.748	95	85 - 115	
Boron,Dissolved	1	50	47.146	94	70 - 130	
Cadmium,Dissolved	1	50	47.935	96	85 - 115	
Calcium,Dissolved	1	5000	5173.0	103	70 - 130	
Chromium,Dissolved	1	50	52.593	105	85 - 115	
Cobalt,Dissolved	1	50	50.768	102	85 - 115	
Copper,Dissolved	1	50	54.742	109	85 - 115	
Iron,Dissolved	1	500	493.36	99	85 - 115	
Lead,Dissolved	1	50	52.756	106	85 - 115	
Manganese,Dissolved	1	50	52.204	104	85 - 115	
Molybdenum,Dissolved	1	50	49.097	98	85 - 115	
Nickel,Dissolved	1	50	50.746	101	85 - 115	
Potassium,Dissolved	1	5000	5182.7	104	70 - 130	
Selenium,Dissolved	1	50	45.036	90	85 - 115	
Silver,Dissolved	1	50	49.614	99	85 - 115	
Sodium,Dissolved	1	5000	5252.5	105	70 - 130	
Uranium,Dissolved	1	50	48.952	98	70 - 130	
Vanadium,Dissolved	1	50	50.843	102	85 - 115	
Zinc,Dissolved	1	50	50.877	102	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755434
Analysis Date:	11/20/2014 7:41:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/19/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum,Dissolved	1	500	504.86	101	70 - 130	
Arsenic,Dissolved	1	50	48.530	97	85 - 115	
Barium,Dissolved	1	50	47.359	95	85 - 115	
Boron,Dissolved	1	50	49.702	99	70 - 130	
Cadmium,Dissolved	1	50	48.077	96	85 - 115	
Calcium,Dissolved	1	5000	5108.7	102	70 - 130	
Chromium,Dissolved	1	50	51.516	103	85 - 115	
Cobalt,Dissolved	1	50	50.404	101	85 - 115	
Copper,Dissolved	1	50	50.817	102	85 - 115	
Iron,Dissolved	1	500	494.59	99	85 - 115	
Lead,Dissolved	1	50	52.996	106	85 - 115	
Manganese,Dissolved	1	50	50.280	101	85 - 115	
Molybdenum,Dissolved	1	50	48.461	97	85 - 115	
Nickel,Dissolved	1	50	49.938	100	85 - 115	
Potassium,Dissolved	1	5000	5043.6	101	70 - 130	
Selenium,Dissolved	1	50	47.003	94	85 - 115	
Silver,Dissolved	1	50	49.631	99	85 - 115	
Sodium,Dissolved	1	5000	5386.8	108	70 - 130	
Uranium,Dissolved	1	50	49.258	99	70 - 130	
Vanadium,Dissolved	1	50	50.032	100	85 - 115	
Zinc,Dissolved	1	50	50.054	100	85 - 115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
Project No: TX000836.0008.00004
Project: Navajo Refining Company - Artesia, NM
Collection Date: 11/11/2014
Analysis Date: 11/20/2014 7:41:00 PM
Instrument ID: ICPMS8
Sample Numbers: L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15

Matrix: Water - ug/L
EPA ID: TN00003
Analytic Batch: WG755434
Analyst: 664
Prep Date: 11/19/2014

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
Aluminum,Dissolved	1	500	506.04	101	504.86	101	70 - 130	0	20	
Arsenic,Dissolved	1	50	48.578	97	48.530	97	85 - 115	0	20	
Barium,Dissolved	1	50	47.748	95	47.359	95	85 - 115	1	20	
Boron,Dissolved	1	50	47.146	94	49.702	99	70 - 130	5	20	
Cadmium,Dissolved	1	50	47.935	96	48.077	96	85 - 115	0	20	
Calcium,Dissolved	1	5000	5173.0	103	5108.7	102	70 - 130	1	20	
Chromium,Dissolved	1	50	52.593	105	51.516	103	85 - 115	2	20	
Cobalt,Dissolved	1	50	50.768	102	50.404	101	85 - 115	1	20	
Copper,Dissolved	1	50	54.742	109	50.817	102	85 - 115	7	20	
Iron,Dissolved	1	500	493.36	99	494.59	99	85 - 115	0	20	
Lead,Dissolved	1	50	52.756	106	52.996	106	85 - 115	0	20	
Manganese,Dissolved	1	50	52.204	104	50.280	101	85 - 115	4	20	
Molybdenum,Dissolved	1	50	49.097	98	48.461	97	85 - 115	1	20	
Nickel,Dissolved	1	50	50.746	101	49.938	100	85 - 115	2	20	
Potassium,Dissolved	1	5000	5182.7	104	5043.6	101	70 - 130	3	20	
Selenium,Dissolved	1	50	45.036	90	47.003	94	85 - 115	4	20	
Silver,Dissolved	1	50	49.614	99	49.631	99	85 - 115	0	20	
Sodium,Dissolved	1	5000	5252.5	105	5386.8	108	70 - 130	3	20	
Uranium,Dissolved	1	50	48.952	98	49.258	99	70 - 130	1	20	
Vanadium,Dissolved	1	50	50.843	102	50.032	100	85 - 115	2	20	
Zinc,Dissolved	1	50	50.877	102	50.054	100	85 - 115	2	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/18/2014 5:20:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755200
 Analyst: 117
 Prep Date: 11/18/2014

Serial Dilution

L733743-02

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	16.897	14.769	13	10	
Arsenic	5	0.8854	1.0512	19	10	
Barium	5	12.953	13.400	3	10	
Boron	5	135.10	129.16	4	10	
Cadmium	5	<0.16	<0.8		10	
Calcium	25	388611	439828	13	10	O1
Chromium	5	1.6579	2.1191	28	10	
Cobalt	5	<0.26	<1.3		10	
Copper	5	<0.52	<2.6		10	
Iron	5	<15	<75		10	
Lead	5	0.8742	1.0445	19	10	
Manganese	5	1.9670	0.8755	55	10	
Molybdenum	5	9.5703	11.631	22	10	
Nickel	25	<1.75	<8.75		10	
Potassium	5	2075.8	2392.4	15	10	
Selenium	5	7.4577	4.1087	45	10	
Silver	5	<0.31	<1.55		10	
Sodium	5	78780	94705	20	10	
Uranium	5	3.2344	3.6728	14	10	
Vanadium	5	6.6599	7.4903	12	10	
Zinc	5	<2.56	<12.8		10	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/18/2014 5:20:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28, -29

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755200
 Analyst: 117
 Prep Date: 11/18/2014

Matrix Spike / Matrix Spike Duplicate

L733743-02

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
Aluminum	1	500	16.897	546.33	106	530.61	103	70 - 130		3	20	
Arsenic	1	50	0.8854	49.935	98	50.535	99	75 - 125		1	20	
Barium	1	50	12.953	64.362	103	65.150	104	75 - 125		1	20	
Boron	1	50	135.10	178.51	87	182.50	95	70 - 130		2	20	
Cadmium	1	50	0.0284	48.487	97	48.727	97	75 - 125		0	20	
Calcium	5	1000	388611	405596	340	412442	477	70 - 130	V	2	20	
Chromium	1	50	1.6579	53.210	103	52.613	102	75 - 125		1	20	
Cobalt	1	50	0.0464	50.333	101	49.777	99	75 - 125		1	20	
Copper	1	50	0.3624	50.428	100	50.451	100	75 - 125		0	20	
Iron	1	500	12.592	509.60	99	504.89	98	75 - 125		1	20	
Lead	1	50	0.8742	50.689	100	50.724	100	75 - 125		0	20	
Manganese	1	50	1.9670	52.022	100	50.954	98	75 - 125		2	20	
Molybdenum	1	50	9.5703	61.249	103	60.753	102	75 - 125		1	20	
Nickel	5	10	1.0310	55.606	109	55.687	109	75 - 125		0	20	
Potassium	1	5000	2075.8	7100.6	100	6999.9	98	70 - 130		1	20	
Selenium	1	50	7.4577	55.306	96	50.246	86	75 - 125		10	20	
Silver	1	50	0.0042	50.890	102	52.168	104	75 - 125		2	20	
Sodium	1	5000	78780	83626	97	83558	96	70 - 130		0	20	
Uranium	1	50	3.2344	52.865	99	53.486	101	70 - 130		1	20	
Vanadium	1	50	6.6599	58.324	103	58.321	103	75 - 125		0	20	
Zinc	1	50	1.2602	48.521	95	48.637	95	75 - 125		0	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
Project No: TX000836.0008.00004
Project: Navajo Refining Company - Artesia, NM
Collection Date: 11/11/2014
Analysis Date: 11/20/2014 6:48:00 PM
Instrument ID: ICPMS8
Sample Numbers: L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49

Matrix: Water - ug/L
EPA ID: TN00003
Analytic Batch: WG755201
Analyst: 664
Prep Date: 11/18/2014

Serial Dilution

L733743-30

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	141.01	162.93	16	10	
Arsenic	5	18.940	19.524	3	10	
Barium	5	21.187	21.620	2	10	
Boron	5	408.28	472.49	16	10	O1
Cadmium	5	<0.16	<0.8		10	
Calcium	100	751288	738860	2	10	
Chromium	5	0.9173	2.5120	174	10	
Cobalt	5	2.9784	3.3888	14	10	
Copper	5	1.0144	2.6431	161	10	
Iron	5	138.09	182.94	32	10	
Lead	5	0.9760	2.8173	189	10	
Manganese	5	2409.2	2518.3	5	10	
Molybdenum	5	25.236	26.214	4	10	
Nickel	5	29.744	47.392	59	10	
Potassium	5	4277.6	4719.4	10	10	
Selenium	5	1.5131	2.1556	42	10	
Silver	5	<0.31	<1.55		10	
Sodium	100	1220674	1202713	1	10	
Uranium	5	11.747	12.252	4	10	
Vanadium	5	17.998	17.673	2	10	
Zinc	5	1.4235	20.007	1305	10	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/20/2014 6:48:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755201
 Analyst: 664
 Prep Date: 11/18/2014

Matrix Spike / Matrix Spike Duplicate

L733743-30

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
Aluminum	1	500	141.01	665.49	105	664.49	105	70 - 130		0	20	
Arsenic	1	50	18.940	68.047	98	69.592	101	75 - 125		2	20	
Barium	1	50	21.187	73.705	105	70.223	98	75 - 125		5	20	
Boron	1	50	408.28	428.14	40	438.83	61	70 - 130	V	2	20	
Cadmium	1	50	0.1036	49.090	98	48.992	98	75 - 125		0	20	
Calcium	20	250	751288	740600	0	713708	0	70 - 130	V	4	20	
Chromium	1	50	0.9173	50.407	99	50.986	100	75 - 125		1	20	
Cobalt	1	50	2.9784	51.817	98	52.594	99	75 - 125		1	20	
Copper	1	50	1.0144	48.597	95	48.727	95	75 - 125		0	20	
Iron	1	500	138.09	635.42	99	642.89	101	75 - 125		1	20	
Lead	1	50	0.9760	48.246	95	48.179	94	75 - 125		0	20	
Manganese	1	50	2409.2	2435.0	52	2478.7	139	75 - 125	V	2	20	
Molybdenum	1	50	25.236	74.535	99	75.211	100	75 - 125		1	20	
Nickel	1	50	29.744	76.739	94	77.812	96	75 - 125		1	20	
Potassium	1	5000	4277.6	9320.4	101	9265.9	100	70 - 130		1	20	
Selenium	1	50	1.5131	51.554	100	53.174	103	75 - 125		3	20	
Silver	1	50	0.0971	50.018	100	49.108	98	75 - 125		2	20	
Sodium	20	250	1220674	1216246	0	1186635	0	70 - 130	V	2	20	
Uranium	1	50	11.747	58.307	93	57.484	91	70 - 130		1	20	
Vanadium	1	50	17.998	68.213	100	68.317	101	75 - 125		0	20	
Zinc	1	50	1.4235	46.139	89	48.767	95	75 - 125		6	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/25/2014 1:15:00 AM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755204
 Analyst: 664
 Prep Date: 11/18/2014

Serial Dilution

L733743-100

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	33.620	47.812	42	10	
Arsenic	5	9.0094	9.2847	3	10	
Barium	5	424.24	412.41	3	10	
Boron	5	540.46	585.74	8	10	
Cadmium	5	<0.16	<0.8		10	
Calcium	50	196950	196237	0	10	
Chromium	5	1.3268	2.9193	120	10	
Cobalt	5	<0.26	<1.3		10	
Copper	5	1.0413	5.5174	430	10	
Lead	5	1.7750	2.3197	31	10	
Manganese	5	374.76	391.38	4	10	
Nickel	5	5.8998	20.820	253	10	
Potassium	5	607.56	668.26	10	10	
Selenium	5	22.018	10.172	54	10	O1
Silver	5	<0.31	<1.55		10	
Sodium	50	586498	594166	1	10	
Uranium	5	<0.33	<1.65		10	
Vanadium	5	0.6200	0.8263	33	10	
Zinc	5	33.802	79.222	134	10	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/25/2014 1:15:00 AM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-100, -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755204
 Analyst: 664
 Prep Date: 11/18/2014

Matrix Spike / Matrix Spike Duplicate

L733743-100

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
Aluminum	1	500	33.620	540.29	101	561.92	106	70 - 130		4	20	
Arsenic	1	50	9.0094	58.466	99	59.763	102	75 - 125		2	20	
Barium	1	50	424.24	476.15	104	475.39	102	75 - 125		0	20	
Boron	1	50	540.46	577.82	75	571.99	63	70 - 130	V	1	20	
Cadmium	1	50	0.0286	50.782	102	50.697	101	75 - 125		0	20	
Calcium	10	500	196950	205859	178	201131	84	70 - 130	V	2	20	
Chromium	1	50	1.3268	50.484	98	50.375	98	75 - 125		0	20	
Cobalt	1	50	0.0674	47.112	94	48.393	97	75 - 125		3	20	
Copper	1	50	1.0413	46.301	91	48.108	94	75 - 125		4	20	
Iron	1	500	21.063	488.08	93	508.00	97	75 - 125		4	20	
Lead	1	50	1.7750	48.257	93	49.644	96	75 - 125		3	20	
Manganese	1	50	374.76	415.43	81	426.10	103	75 - 125		3	20	
Molybdenum	1	50	0.0249	46.664	93	49.021	98	75 - 125		5	20	
Nickel	1	50	5.8998	50.111	88	50.718	90	75 - 125		1	20	
Potassium	1	5000	607.56	5629.3	100	5605.8	100	70 - 130		0	20	
Selenium	1	50	22.018	44.892	46	46.121	48	75 - 125	J6	3	20	
Silver	1	50	0.0523	41.575	83	45.230	90	75 - 125		8	20	
Sodium	10	500	586498	595942	189	584334	0	70 - 130	V	2	20	
Uranium	1	50	0.0420	47.496	95	48.216	96	70 - 130		2	20	
Vanadium	1	50	0.6200	50.951	101	51.417	102	75 - 125		1	20	
Zinc	1	50	33.802	48.916	30	53.313	39	75 - 125	J6	9	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 12/1/2014 4:05:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755205
 Analyst: 664
 Prep Date: 11/18/2014

Serial Dilution

L733743-120

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	153.95	201.37	31	10	
Arsenic	5	3.4030	3.4226	1	10	
Barium	5	15.136	14.404	5	10	
Boron	5	701.88	811.58	16	10	O1
Cadmium	5	<0.16	<0.8		10	
Calcium	50	694526	751632	8	10	
Chromium	5	0.8627	0.6665	23	10	
Cobalt	5	<0.26	<1.3		10	
Copper	5	1.2687	1.3842	9	10	
Iron	5	128.67	148.86	16	10	
Lead	5	0.2409	0.3547	47	10	
Manganese	5	30.084	31.936	6	10	
Molybdenum	5	9.7218	10.610	9	10	
Nickel	5	2.5976	5.6073	116	10	
Potassium	5	716.59	705.13	2	10	
Selenium	5	2.8283	3.6240	28	10	
Silver	5	<0.31	<1.55		10	
Sodium	50	336113	369022	10	10	
Uranium	5	101.39	108.02	7	10	
Vanadium	5	24.694	26.361	7	10	
Zinc	5	3.8852	7.0081	80	10	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 12/1/2014 4:05:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755205
 Analyst: 664
 Prep Date: 11/18/2014

Matrix Spike / Matrix Spike Duplicate

L733743-120

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Aluminum	1	500	153.95	655.02	100	670.96	103	70 - 130		2	20	
Arsenic	1	50	3.4030	56.725	107	54.566	102	75 - 125		4	20	
Barium	1	50	15.136	64.824	99	61.474	93	75 - 125		5	20	
Boron	1	50	701.88	735.96	68	742.85	82	70 - 130	V	1	20	
Cadmium	1	50	0.0446	49.611	99	49.005	98	75 - 125		1	20	
Calcium	10	500	694526	690183	0	720528	520	70 - 130	V	4	20	
Chromium	1	50	0.8627	53.863	106	52.960	104	75 - 125		2	20	
Cobalt	1	50	0.1230	52.247	104	49.603	99	75 - 125		5	20	
Copper	1	50	1.2687	52.279	102	50.125	98	75 - 125		4	20	
Iron	1	500	128.67	642.55	103	624.79	99	75 - 125		3	20	
Lead	1	50	0.2409	50.738	101	49.924	99	75 - 125		2	20	
Manganese	1	50	30.084	81.352	103	78.892	98	75 - 125		3	20	
Molybdenum	1	50	9.7218	65.227	111	62.382	105	75 - 125		4	20	
Nickel	1	50	2.5976	52.744	100	51.295	97	75 - 125		3	20	
Potassium	1	5000	716.59	5748.4	101	5584.1	97	70 - 130		3	20	
Selenium	1	50	2.8283	51.456	97	47.661	90	75 - 125		8	20	
Silver	1	50	0.1079	48.887	98	48.158	96	75 - 125		2	20	
Sodium	10	500	336113	340431	86	350069	279	70 - 130	V	3	20	
Uranium	1	50	101.39	158.51	114	157.13	111	70 - 130		1	20	
Vanadium	1	50	24.694	76.976	105	77.408	105	75 - 125		1	20	
Zinc	1	50	3.8852	48.982	90	47.473	87	75 - 125		3	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 12/1/2014 6:00:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755207
 Analyst: 117
 Prep Date: 11/18/2014

Serial Dilution

L733743-147

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	80.723	112.56	39	10	
Arsenic	5	19.090	20.071	5	10	
Barium	5	126.39	130.96	4	10	
Boron	5	435.39	491.87	13	10	
Cadmium	5	<0.16	<0.8		10	
Calcium	25	205062	204124	0	10	
Chromium	5	0.6021	1.1048	83	10	
Cobalt	5	2.0848	1.9965	4	10	
Copper	5	<0.52	<2.6		10	
Iron	5	3519.6	3781.7	7	10	
Lead	5	0.7974	0.6225	22	10	
Manganese	5	385.44	413.09	7	10	
Molybdenum	5	1.4931	1.4836	1	10	
Nickel	5	3.7663	5.3726	43	10	
Potassium	5	461.14	399.40	13	10	
Selenium	5	<0.38	<1.9		10	
Silver	5	<0.31	<1.55		10	
Sodium	25	137058	141068	3	10	
Uranium	5	1.7979	1.7187	4	10	
Vanadium	5	1.0536	1.2378	17	10	
Zinc	5	<2.56	<12.8		10	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 12/1/2014 6:00:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755207
 Analyst: 117
 Prep Date: 11/18/2014

Matrix Spike / Matrix Spike Duplicate

L733743-147

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
Aluminum	1	500	80.723	615.10	107	635.34	111	70 - 130		3	20	
Arsenic	1	50	19.090	70.557	103	69.784	101	75 - 125		1	20	
Barium	1	50	126.39	181.84	111	180.43	108	75 - 125		1	20	
Boron	1	50	435.39	473.02	75	477.04	83	70 - 130		1	20	
Cadmium	1	50	0.0298	50.858	102	49.911	100	75 - 125		2	20	
Calcium	5	1000	205062	210896	117	198435	0	70 - 130	V	6	20	
Chromium	1	50	0.6021	52.641	104	53.354	106	75 - 125		1	20	
Cobalt	1	50	2.0848	51.521	99	50.919	98	75 - 125		1	20	
Copper	1	50	0.5158	49.316	98	48.483	96	75 - 125		2	20	
Iron	1	500	3519.6	4014.1	99	3996.8	95	75 - 125		0	20	
Lead	1	50	0.7974	51.242	101	51.535	101	75 - 125		1	20	
Manganese	1	50	385.44	436.04	101	427.32	84	75 - 125		2	20	
Molybdenum	1	50	1.4931	52.157	101	52.497	102	75 - 125		1	20	
Nickel	1	50	3.7663	51.972	96	52.088	97	75 - 125		0	20	
Potassium	1	5000	461.14	5528.4	101	5465.7	100	70 - 130		1	20	
Selenium	1	50	0.2529	45.041	90	45.407	90	75 - 125		1	20	
Silver	1	50	0.0715	19.355	39	20.191	40	75 - 125	J6	4	20	
Sodium	5	1000	137058	142717	113	137662	12	70 - 130	V	4	20	
Uranium	1	50	1.7979	52.829	102	52.963	102	70 - 130		0	20	
Vanadium	1	50	1.0536	52.966	104	53.855	106	75 - 125		2	20	
Zinc	1	50	1.6104	49.200	95	48.822	94	75 - 125		1	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755207
Analysis Date:	12/1/2014 6:00:00 PM	Analyst:	117
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-140, -141, -142, -143, -144, -145, -146, -147, -148, -149, -150, -151, -152, -153, -154, -155, -156, -157, -158		

Post Digest Spike

L733743-147

Analyte	Dil	Spike Value	Sample	Result	% Rec	Control Limits	Qualifier
Silver	1	50	0.0715	51.165	102	85-115	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/18/2014 4:01:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755208
 Analyst: 664
 Prep Date: 11/18/2014

Serial Dilution

L733743-50

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	25	<10	<50		10	
Arsenic	25	5.4925	4.6539	15	10	
Barium	25	18.827	16.710	11	10	
Cadmium	25	<0.8	<4		10	
Calcium	100	763475	843401	10	10	
Chromium	25	<2.7	<13.5		10	
Cobalt	25	<1.3	<6.5		10	
Copper	25	<2.6	<13		10	
Iron	25	2226.4	2532.3	14	10	
Lead	25	<1.2	<6		10	
Manganese	25	156.95	176.37	12	10	O1
Molybdenum	25	3.4087	3.5199	3	10	
Nickel	25	2.6616	12.008	351	10	
Potassium	25	12707	14210	12	10	O1
Selenium	25	4.0208	2.0352	49	10	
Silver	25	<1.55	<7.75		10	
Sodium	100	1723140	1930324	12	10	O1
Uranium	25	3.8336	3.4971	9	10	
Vanadium	25	0.9741	0.3706	62	10	
Zinc	25	<12.8	<64		10	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/18/2014 4:01:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-50, -51, -52, -53, -54, -55, -56, -57, -58, -59, -60, -61, -62, -63, -66, -67, -69, -70, -71, -72

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755208
 Analyst: 664
 Prep Date: 11/18/2014

Matrix Spike / Matrix Spike Duplicate

L733743-50

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
Aluminum	5	100	7.5669	567.99	112	574.09	113	70 - 130		1	20
Arsenic	5	10	5.4925	56.296	102	60.518	110	75 - 125		7	20
Barium	5	10	18.827	71.837	106	77.037	116	75 - 125		7	20
Boron	5	10	1289.6	1373.5	168	1552.4	526	70 - 130	V	12	20
Cadmium	5	10	0.1728	49.968	100	52.871	105	75 - 125		6	20
Calcium	20	250	763475	762995	0	822758	1186	70 - 130	V	8	20
Chromium	5	10	1.4979	52.273	102	56.703	110	75 - 125		8	20
Cobalt	5	10	0.2587	52.461	104	56.121	112	75 - 125		7	20
Copper	5	10	1.4116	53.353	104	55.619	108	75 - 125		4	20
Iron	5	100	2226.4	2778.0	110	2976.6	150	75 - 125	V	7	20
Lead	5	10	-2.055	48.915	98	51.354	103	75 - 125		5	20
Manganese	5	10	156.95	211.83	110	227.99	142	75 - 125	J5	7	20
Molybdenum	5	10	3.4087	56.507	106	59.748	113	75 - 125		6	20
Nickel	5	10	2.6616	55.941	107	57.311	109	75 - 125		2	20
Potassium	5	1000	12707	17495	96	19291	132	70 - 130	J5	10	20
Selenium	5	10	4.0208	49.689	91	60.539	113	75 - 125		20	20
Silver	5	10	0.3857	48.567	96	52.010	103	75 - 125		7	20
Sodium	20	250	1723140	1732500	187	1854762	2632	70 - 130	V	7	20
Uranium	5	10	3.8336	54.936	102	57.361	107	70 - 130		4	20
Vanadium	5	10	0.9741	52.262	103	59.543	117	75 - 125		13	20
Zinc	5	10	12.642	55.067	85	52.445	80	75 - 125		5	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020

Project No: TX000836.0008.00004

Project: Navajo Refining Company - Artesia, NM

Collection Date: 11/11/2014

Analysis Date: 11/19/2014 9:15:00 PM

Instrument ID: ICPMS8

Sample Numbers: L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94

Matrix: Water - ug/L

EPA ID: TN00003

Analytic Batch: WG755209

Analyst: 664

Prep Date: 11/18/2014

Serial Dilution

L733743-73

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	12.925	21.370	65	10	
Arsenic	5	10.228	10.746	5	10	
Barium	5	42.746	43.126	1	10	
Boron	5	1724.1	1950.4	13	10	O1
Cadmium	5	<0.16	<0.8		10	
Calcium	25	381430	317741	17	10	O1
Chromium	5	376.16	392.06	4	10	
Cobalt	5	0.2678	0.5066	89	10	
Copper	5	<0.52	<2.6		10	
Iron	5	93.369	119.89	28	10	
Lead	5	3.5445	4.4424	25	10	
Manganese	5	293.26	305.48	4	10	
Molybdenum	5	2.4015	2.7925	16	10	
Nickel	5	19.619	22.605	15	10	
Potassium	5	619.62	910.78	47	10	
Selenium	5	<0.38	<1.9		10	
Silver	5	<0.31	<1.55		10	
Sodium	50	527278	453453	14	10	O1
Uranium	5	1.1653	1.2241	5	10	
Vanadium	5	1.7776	2.0071	13	10	
Zinc	5	<2.56	<12.8		10	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/19/2014 9:15:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-73, -74, -75, -77, -78, -79, -80, -81, -82, -83, -84, -85, -86, -87, -88, -90, -91, -92, -93, -94

Matrix: Water - ug/L
 EPA ID: TN00003
 Analytic Batch: WG755209
 Analyst: 664
 Prep Date: 11/18/2014

Matrix Spike / Matrix Spike Duplicate

L733743-73

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Aluminum	1	500	12.925	552.93	108	507.33	99	70 - 130		9	20	
Arsenic	1	50	10.228	59.289	98	57.902	95	75 - 125		2	20	
Barium	1	50	42.746	93.005	101	89.908	94	75 - 125		3	20	
Boron	1	50	1724.1	1710.4	0	1713.9	0	70 - 130	V	0	20	
Cadmium	1	50	0.0147	47.285	95	46.012	92	75 - 125		3	20	
Calcium	5	1000	381430	350257	0	371035	0	70 - 130	V	6	20	
Chromium	1	50	376.16	423.19	94	413.79	75	75 - 125		2	20	
Cobalt	1	50	0.2678	46.774	93	47.080	94	75 - 125		1	20	
Copper	1	50	0.4241	46.019	91	45.341	90	75 - 125		1	20	
Iron	1	500	93.369	563.18	94	565.52	94	75 - 125		0	20	
Lead	1	50	3.5445	50.117	93	48.349	90	75 - 125		4	20	
Manganese	1	50	293.26	338.09	90	340.66	95	75 - 125		1	20	
Molybdenum	1	50	2.4015	49.541	94	49.546	94	75 - 125		0	20	
Nickel	1	50	19.619	64.594	90	64.920	91	75 - 125		1	20	
Potassium	1	5000	619.62	5504.1	98	5354.9	95	70 - 130		3	20	
Selenium	1	50	0.0779	47.289	94	48.140	96	75 - 125		2	20	
Silver	1	50	0.0072	51.500	103	49.548	99	75 - 125		4	20	
Sodium	10	500	527278	526610	0	504405	0	70 - 130	V	4	20	
Uranium	1	50	1.1653	47.892	93	46.414	90	70 - 130		3	20	
Vanadium	1	50	1.7776	50.608	98	48.623	94	75 - 125		4	20	
Zinc	1	50	0.8348	46.659	92	45.956	90	75 - 125		2	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755211
Analysis Date:	11/20/2014 5:49:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-95, -96, -97, -98, -99, -160		

Serial Dilution

L733743-160

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum	5	11.546	169.25	1366	10	
Arsenic	5	<0.25	<1.25		10	
Barium	5	2.9236	4.3604	49	10	
Boron	5	18.936	1.0772	94	10	
Cadmium	5	<0.16	<0.8		10	
Calcium	5	335.11	332.97	1	10	
Chromium	5	<0.54	<2.7		10	
Cobalt	5	<0.26	<1.3		10	
Copper	5	<0.52	<2.6		10	
Iron	5	<15	<75		10	
Lead	5	<0.24	<1.2		10	
Manganese	5	6.0564	6.7789	12	10	
Molybdenum	5	<0.14	<0.7		10	
Nickel	5	0.7407	0.4698	37	10	
Potassium	5	<37	<185		10	
Selenium	5	0.6340	4.7990	657	10	
Silver	5	<0.31	<1.55		10	
Sodium	5	238.35	72.645	70	10	
Uranium	5	<0.33	<1.65		10	
Vanadium	5	<0.18	<0.9		10	
Zinc	5	<2.56	<12.8		10	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755211
Analysis Date:	11/20/2014 5:49:00 PM	Analyst:	664
Instrument ID:	ICPMS8	Prep Date:	11/18/2014
Sample Numbers:	L733743-95, -96, -97, -98, -99, -160		

Matrix Spike / Matrix Spike Duplicate

L733743-160

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
Aluminum	1	500	11.546	534.68	105	562.99	110	70 - 130		5	20	
Arsenic	1	50	0.0144	50.924	102	52.121	104	75 - 125		2	20	
Barium	1	50	2.9236	56.578	107	57.621	109	75 - 125		2	20	
Boron	1	50	18.936	70.847	104	74.952	112	70 - 130		6	20	
Cadmium	1	50	0.0097	51.635	103	53.738	107	75 - 125		4	20	
Calcium	1	5000	335.11	5564.5	105	5661.7	107	70 - 130		2	20	
Chromium	1	50	0.5372	53.686	106	53.805	107	75 - 125		0	20	
Cobalt	1	50	0.1161	52.029	104	52.843	105	75 - 125		2	20	
Copper	1	50	0.4281	52.585	104	52.842	105	75 - 125		0	20	
Iron	1	500	-8.561	571.36	114	518.71	104	75 - 125		10	20	
Lead	1	50	0.0998	52.336	104	53.721	107	75 - 125		3	20	
Manganese	1	50	6.0564	59.859	108	59.906	108	75 - 125		0	20	
Molybdenum	1	50	0.0228	51.040	102	51.308	103	75 - 125		1	20	
Nickel	1	50	0.7407	52.884	104	53.201	105	75 - 125		1	20	
Potassium	1	5000	30.245	5198.0	103	5297.9	105	70 - 130		2	20	
Selenium	1	50	0.6340	50.326	99	51.099	101	75 - 125		2	20	
Silver	1	50	0.0102	51.973	104	52.545	105	75 - 125		1	20	
Sodium	1	5000	238.35	5364.5	103	5463.8	105	70 - 130		2	20	
Uranium	1	50	0.0016	51.202	102	52.741	105	70 - 130		3	20	
Vanadium	1	50	0.0138	52.273	105	53.911	108	75 - 125		3	20	
Zinc	1	50	0.3990	49.074	97	49.774	99	75 - 125		1	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
Project No: TX000836.0008.00004
Project: Navajo Refining Company - Artesia, NM
Collection Date: 11/11/2014
Analysis Date: 11/20/2014 7:41:00 PM
Instrument ID: ICPMS8
Sample Numbers: L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15

Matrix: Water - ug/L
EPA ID: TN00003
Analytic Batch: WG755434
Analyst: 664
Prep Date: 11/19/2014

Serial Dilution

L733743-01

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum,Dissolved	25	<10	<50		10	
Arsenic,Dissolved	25	5.0344	5.0219	0	10	
Barium,Dissolved	25	27.805	23.183	17	10	
Boron,Dissolved	25	311.97	331.41	6	10	
Cadmium,Dissolved	25	<0.8	<4		10	
Calcium,Dissolved	250	1198233	1119488	7	10	
Chromium,Dissolved	25	<2.7	<13.5		10	
Cobalt,Dissolved	25	<1.3	<6.5		10	
Copper,Dissolved	25	<2.6	<13		10	
Iron,Dissolved	25	<75	<375		10	
Lead,Dissolved	25	<1.2	<6		10	
Manganese,Dissolved	25	128.80	111.14	14	10	O1
Molybdenum,Dissolved	25	12.118	12.811	6	10	
Nickel,Dissolved	25	2.9145	0.3469	88	10	
Potassium,Dissolved	25	7198.7	6149.7	15	10	
Selenium,Dissolved	25	29.063	31.486	8	10	
Silver,Dissolved	25	<1.55	<7.75		10	
Sodium,Dissolved	250	2593675	2599558	0	10	
Uranium,Dissolved	25	16.127	16.366	1	10	
Vanadium,Dissolved	25	11.270	10.063	11	10	
Zinc,Dissolved	25	20.450	-20.38	200	10	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Trace Metals by Method 6020
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/20/2014 7:41:00 PM
 Instrument ID: ICPMS8
 Sample Numbers: L733743-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15

Matrix: Water - ug/L
 EPA ID: TN00003
Analytic Batch: WG755434
 Analyst: 664
 Prep Date: 11/19/2014

Matrix Spike / Matrix Spike Duplicate

L733743-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Aluminum,Dissolved	5	100	-4.408	497.59	100	461.64	92	70 - 130		7	20	
Arsenic,Dissolved	5	10	5.0344	51.680	93	50.211	90	75 - 125		3	20	
Barium,Dissolved	5	10	27.805	69.081	83	68.136	81	75 - 125		1	20	
Boron,Dissolved	5	10	311.97	343.42	63	356.75	90	70 - 130	V	4	20	
Cadmium,Dissolved	5	10	0.1138	47.212	94	44.648	89	75 - 125		6	20	
Calcium,Dissolved	50	100	11982331207317	182	1192850	0	70 - 130	V		1	20	
Chromium,Dissolved	5	10	0.5143	48.780	97	44.688	88	75 - 125		9	20	
Cobalt,Dissolved	5	10	0.4366	46.344	92	44.506	88	75 - 125		4	20	
Copper,Dissolved	5	10	0.9282	46.885	92	43.937	86	75 - 125		6	20	
Iron,Dissolved	5	100	-71.49	389.28	78	366.48	73	75 - 125	J6	6	20	
Lead,Dissolved	5	10	1.1616	51.923	102	52.344	102	75 - 125		1	20	
Manganese,Dissolved	5	10	128.80	172.08	87	162.02	66	75 - 125	J6	6	20	
Molybdenum,Dissolved	5	10	12.118	57.443	91	56.916	90	75 - 125		1	20	
Nickel,Dissolved	5	10	2.9145	47.927	90	46.286	87	75 - 125		3	20	
Potassium,Dissolved	5	1000	7198.7	11792	92	11267	81	70 - 130		5	20	
Selenium,Dissolved	5	10	29.063	70.325	83	69.668	81	75 - 125		1	20	
Silver,Dissolved	5	10	0.4803	47.171	93	45.875	91	75 - 125		3	20	
Sodium,Dissolved	50	100	25936752584216	0	2533656	0	70 - 130	V		2	20	
Uranium,Dissolved	5	10	16.127	64.924	98	65.126	98	70 - 130		0	20	
Vanadium,Dissolved	5	10	11.270	59.373	96	56.352	90	75 - 125		5	20	
Zinc,Dissolved	5	10	20.450	40.208	40	38.005	35	75 - 125	J6	6	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Trace Metals by Method 6020		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756145
Analysis Date:	11/24/2014 6:51:00 PM	Analyst:	117
Instrument ID:	ICPMS8	Prep Date:	11/21/2014
Sample Numbers:	L733743-33, -35, -36, -37, -39, -43, -44, -45		

Serial Dilution

L733743-33

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Chromium	5	0.5494	0.5732	4	10	

Matrix Spike / Matrix Spike Duplicate

L733743-33

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
Chromium	1	50	0.5494	49.333	98	50.652	100	75 - 125		3	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754942
Analysis Date:	11/18/2014 11:09:00 AM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-01, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.0837	92.4	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.9147	89.4	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.0837	92.4	4.9147	89.4	67 - 132	3.38	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile TPH by Method 8015D/GRO
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/20/2014 5:40:00 AM
 Instrument ID: VOCGC7
 Sample Numbers: L733743-30, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49, -50

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG754943
 Analyst: 621

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	3.8540	70.1	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	3.8043	69.2	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	3.8540	70.1	3.8043	69.2	67 - 132	1.3	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile TPH by Method 8015D/GRO
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754944**
 Analysis Date: 11/20/2014 6:34:00 AM Analyst: 621
 Instrument ID: VOCGC6
 Sample Numbers: L733743-51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -66, -71, -75

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.4589	81.1	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.5536	82.8	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.4589	81.1	4.5536	82.8	67 - 132	2.1	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754945
Analysis Date:	11/20/2014 9:35:00 AM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-94, -95, -96, -97, -98, -100, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.4498	80.9	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.5882	83.4	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD	RPD Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.4498	80.9	4.5882	83.4	67 - 132	3.06	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile TPH by Method 8015D/GRO
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/20/2014 5:40:00 AM
 Instrument ID: VOCGC1
 Sample Numbers: L733743-113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG754946
 Analyst: 621

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.9217	89.5	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.8755	88.6	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	% RPD	Control RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.9217	89.5	4.8755	88.6	67 - 132	0.94	20			

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile TPH by Method 8015D/GRO
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/21/2014 12:26:00 PM
 Instrument ID: VOCGC7
 Sample Numbers: L733743-135, -136, -137, -138, -143, -145, -146, -147, -151, -152, -153, -154, -155, -156, -157, -158

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG754947
 Analyst: 621

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.3597	97.4	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.2829	96.1	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.3597	97.4	5.2829	96.1	67 - 132	1.44	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754948
Analysis Date:	11/19/2014 4:45:00 AM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-159, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.8335	87.9	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.7966	87.2	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD	RPD Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.8335	87.9	4.7966	87.2	67 - 132	0.77	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755413
Analysis Date:	11/19/2014 2:58:00 PM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-02		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.6972	85.4	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.8005	87.3	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	% RPD	Control RPD	Qual
TPH (GC/FID) Low Fraction	1	5.5	4.6972	85.4	4.8005	87.3	67 - 132	2.18	20			

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755883
Analysis Date:	11/21/2014 12:32:00 AM	Analyst:	621
Instrument ID:	VOCGC6		
Sample Numbers:	L733743-03, -04, -05, -06, -07, -08, -09, -29, -79, -93, -99		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	6.5553	119	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	6.8755	125	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD	RPD Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	6.5553	119	6.8755	125	67 - 132	4.77	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755923
Analysis Date:	11/21/2014 11:32:00 AM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-69, -70, -72, -73, -74		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.7254	104	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.6209	102	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.7254	104	5.6209	102	67 - 132	1.84	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756173
Analysis Date:	11/22/2014 5:58:00 PM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-133, -148, -149, -150		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
TPH (GC/FID) Low Fraction	8006-61-9	< 0.100	< 0.0314	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.4556	99.2	67 - 132	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.4438	99	67 - 132	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
TPH (GC/FID) Low Fraction	1	5.5	5.4556	99.2	5.4438	99	67 - 132	0.22	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754942
Analysis Date:	11/18/2014 11:09:00 AM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-01, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28		

Matrix Spike / Matrix Spike Duplicate

L733743-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0385	4.9774	89.8	4.8117	86.8	50 - 143		3.39	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754943
Analysis Date:	11/20/2014 5:40:00 AM	Analyst:	621
Instrument ID:	VOCGC7		
Sample Numbers:	L733743-30, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49, -50		

Matrix Spike / Matrix Spike Duplicate

L733743-30

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.9060	4.8078	70.9	4.7590	70.1	50 - 143		1.02	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754944
Analysis Date:	11/20/2014 6:34:00 AM	Analyst:	621
Instrument ID:	VOCGC6		
Sample Numbers:	L733743-51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -66, -71, -75		

Matrix Spike / Matrix Spike Duplicate

L733743-51

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0	4.6587	84.7	4.9269	89.6	50 - 143		5.6	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile TPH by Method 8015D/GRO
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/20/2014 9:35:00 AM
 Instrument ID: VOCGC4
 Sample Numbers: L733743-94, -95, -96, -97, -98, -100, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG754945
 Analyst: 621

Matrix Spike / Matrix Spike Duplicate

L733743-102

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0320	4.4774	80.8	4.4880	81	50 - 143		0.24	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile TPH by Method 8015D/GRO

Project No: TX000836.0008.00004

Project: Navajo Refining Company - Artesia, NM

Collection Date: 11/11/2014

Analysis Date: 11/20/2014 5:40:00 AM

Instrument ID: VOCGC1

Sample Numbers: L733743-113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131

Matrix: Water - mg/L

EPA ID: TN00003

Analytic Batch: WG754946

Analyst: 621

Matrix Spike / Matrix Spike Duplicate

L733743-123

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0148	3.8758	70.2	3.8603	69.9	50 - 143		0.4	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile TPH by Method 8015D/GRO
 Project No: TX000836.0008.00004
 Project: Navajo Refining Company - Artesia, NM
 Collection Date: 11/11/2014
 Analysis Date: 11/21/2014 12:26:00 PM
 Instrument ID: VOCGC7
 Sample Numbers: L733743-135, -136, -137, -138, -143, -145, -146, -147, -151, -152, -153, -154, -155, -156, -157, -158

Matrix: Water - mg/L
 EPA ID: TN00003
Analytic Batch: WG754947
 Analyst: 621

Matrix Spike / Matrix Spike Duplicate

L733743-153

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0138	5.2435	95.1	5.5805	101	50 - 143		6.23	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754948
Analysis Date:	11/19/2014 4:45:00 AM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-159, -160		

Matrix Spike / Matrix Spike Duplicate

L733743-159

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0	4.9202	89.5	4.6411	84.4	50 - 143		5.84	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755413
Analysis Date:	11/19/2014 2:58:00 PM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-02		

Matrix Spike / Matrix Spike Duplicate

L733020-03

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0222	4.6873	84.8	4.7539	86	50 - 143		1.41	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755883
Analysis Date:	11/21/2014 12:32:00 AM	Analyst:	621
Instrument ID:	VOCGC6		
Sample Numbers:	L733743-03, -04, -05, -06, -07, -08, -09, -29, -79, -93, -99		

Matrix Spike / Matrix Spike Duplicate

L733869-15

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	50	5.5	57.800	481.75	154	389.43	121	50 - 143	J5	21.2	20	J3

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755923
Analysis Date:	11/21/2014 11:32:00 AM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-69, -70, -72, -73, -74		

Matrix Spike / Matrix Spike Duplicate

L733743-69

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	1.0057	6.0704	92.1	6.4498	99	50 - 143		6.06	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756173
Analysis Date:	11/22/2014 5:58:00 PM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-133, -148, -149, -150		

Matrix Spike / Matrix Spike Duplicate

L733869-44

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
TPH (GC/FID) Low Fraction	1	5.5	0.0	5.3569	97.4	5.3869	97.9	50 - 143		0.56	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754942
Analysis Date:	11/18/2014 11:09:00 AM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-01, -10, -11, -12, -13, -14, -15, -25, -26, -27, -28		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-01	VOCGC4	1117_43	0.216	108
L733743-10	VOCGC4	1117_57	0.218	109
L733743-11	VOCGC4	1117_58	0.218	109
L733743-12	VOCGC4	1117_59	0.217	109
L733743-13	VOCGC4	1117_60	0.218	109
L733743-14	VOCGC4	1117_61	0.218	109
L733743-15	VOCGC4	1117_62	0.218	109
L733743-25	VOCGC4	1117_63	0.218	109
L733743-26	VOCGC4	1117_64	0.222	111
L733743-27	VOCGC4	1117_65	0.221	110
L733743-28	VOCGC4	1117_66	0.219	109
LCS WG754942	VOCGC4	1117_37	0.219	109
LCSD WG754942	VOCGC4	1117_38	0.220	110
MS WG754942	VOCGC4	1117_39	0.218	109
MSD WG754942	VOCGC4	1117_40	0.216	108
BLANK WG754942	VOCGC4	1117_42	0.217	108

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754943
Analysis Date:	11/20/2014 5:40:00 AM	Analyst:	621
Instrument ID:	VOCGC7		
Sample Numbers:	L733743-30, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49, -50		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-30	VOCGC7	1119_44	0.195	97.5
L733743-32	VOCGC7	1119_45	0.196	98.2
L733743-33	VOCGC7	1119_46	0.196	98.2
L733743-34	VOCGC7	1119_47	0.196	98.1
L733743-35 5x	VOCGC7	1119_48	0.198	99.0
L733743-36 5x	VOCGC7	1119_49	0.198	99.2
L733743-37	VOCGC7	1119_50	0.202	101
L733743-38	VOCGC7	1119_51	0.195	97.7
L733743-39	VOCGC7	1119_52	0.195	97.7
L733743-40	VOCGC7	1119_53	0.196	98.2
L733743-41	VOCGC7	1119_58	0.194	97.2
L733743-42	VOCGC7	1119_59	0.195	97.7
L733743-43	VOCGC7	1119_60	0.196	98.2
L733743-44	VOCGC7	1119_61	0.195	97.7
L733743-45	VOCGC7	1119_62	0.195	97.7
L733743-46	VOCGC7	1119_63	0.196	98.2
L733743-47	VOCGC7	1119_64	0.196	98.0
L733743-48	VOCGC7	1119_65	0.194	97.2
L733743-49	VOCGC7	1119_66	0.195	97.4
L733743-50	VOCGC7	1119_67	0.195	97.7
LCS WG754943	VOCGC7	1119_38	0.208	104
LCSD WG754943	VOCGC7	1119_39	0.207	104
MS WG754943	VOCGC7	1119_40	0.207	104
MSD WG754943	VOCGC7	1119_41	0.207	103
BLANK WG754943	VOCGC7	1119_43	0.196	98.0

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754944
Analysis Date:	11/20/2014 6:34:00 AM	Analyst:	621
Instrument ID:	VOCGC6		
Sample Numbers:	L733743-51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -66, -71, -75		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec
L733743-51	VOCGC6	1119_47	0.198	98.8		
L733743-52	VOCGC6	1119_48	0.197	98.6		
L733743-53	VOCGC6	1119_49	0.198	98.8		
L733743-54	VOCGC6	1119_50	0.197	98.5		
L733743-55	VOCGC6	1119_51	0.197	98.7		
L733743-57	VOCGC6	1119_52	0.197	98.5		
L733743-58	VOCGC6	1119_53	0.197	98.7		
L733743-59	VOCGC6	1119_54	0.198	99.1		
L733743-60	VOCGC6	1119_55	0.198	98.9		
L733743-61	VOCGC6	1119_56	0.197	98.7		
L733743-62	VOCGC6	1119_62	0.197	98.7		
L733743-63	VOCGC6	1119_63	0.198	98.9		
L733743-66	VOCGC6	1119_64	0.198	98.8		
L733743-71 25x	VOCGC6	1119_67	0.199	99.3		
L733743-75	VOCGC6	1119_71	0.198	98.9		
LCS WG754944	VOCGC6	1119_41	0.197	98.6	0.202	101
LCSD WG754944	VOCGC6	1119_42	0.197	98.4	0.202	101
MS WG754944	VOCGC6	1119_43	0.197	98.4	0.203	102
MSD WG754944	VOCGC6	1119_44	0.197	98.5	0.203	102
BLANK WG754944	VOCGC6	1119_46	0.197	98.5	0.202	101

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754945
Analysis Date:	11/20/2014 9:35:00 AM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-94, -95, -96, -97, -98, -100, -102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-100 10x	VOCGC4	1119_44	0.231	116
L733743-102	VOCGC4	1119_43	0.228	114
L733743-103	VOCGC4	1119_45	0.228	114
L733743-104 5x	VOCGC4	1119_46	0.232	116
L733743-105 100x	VOCGC4	1119_47	0.229	115
L733743-106 25x	VOCGC4	1119_48	0.224	112
L733743-107 10x	VOCGC4	1119_49	0.233	117
L733743-108	VOCGC4	1119_50	0.229	114
L733743-109 10x	VOCGC4	1119_51	0.232	116
L733743-110 50x	VOCGC4	1119_52	0.230	115
L733743-111 100x	VOCGC4	1119_58	0.229	115
L733743-112 10x	VOCGC4	1119_59	0.234	117
L733743-94	VOCGC4	1119_62	0.230	115
L733743-95	VOCGC4	1119_63	0.230	115
L733743-96	VOCGC4	1119_64	0.230	115
L733743-97 100x	VOCGC4	1119_65	0.230	115
L733743-98 10x	VOCGC4	1119_66	0.244	122
LCS WG754945	VOCGC4	1119_37	0.230	115
LCSD WG754945	VOCGC4	1119_38	0.225	113
MS WG754945	VOCGC4	1119_39	0.228	114
MSD WG754945	VOCGC4	1119_40	0.228	114
BLANK WG754945	VOCGC4	1119_42	0.228	114

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile TPH by Method 8015D/GRO
Project No: TX000836.0008.00004
Project: Navajo Refining Company - Artesia, NM
Collection Date: 11/11/2014
Analysis Date: 11/20/2014 5:40:00 AM
Instrument ID: VOCGC1
Sample Numbers: L733743-113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125, -126, -127, -128, -129, -130, -131

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG754946
Analyst: 621

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec
L733743-113 25x	VOCGC1	1119_52	0.199	99.3		
L733743-114 25x	VOCGC1	1119_53	0.201	101		
L733743-115	VOCGC1	1119_54	0.159	79.3		
L733743-116	VOCGC1	1119_55	0.193	96.4		
L733743-117	VOCGC1	1119_56	0.196	98.0		
L733743-118	VOCGC1	1119_57	0.183	91.4		
L733743-119	VOCGC1	1119_58	0.199	99.3		
L733743-120	VOCGC1	1119_59	0.197	98.7		
L733743-121	VOCGC1	1119_60	0.198	98.9		
L733743-122	VOCGC1	1119_65	0.198	99.2		
L733743-123	VOCGC1	1119_51	0.197	98.7		
L733743-124	VOCGC1	1119_66	0.198	99.1		
L733743-125	VOCGC1	1119_67	0.198	99.1		
L733743-126	VOCGC1	1119_68	0.200	99.8		
L733743-127	VOCGC1	1119_69	0.199	99.4		
L733743-128 10x	VOCGC1	1119_70	0.194	97.2		
L733743-129	VOCGC1	1119_71	0.195	97.3		
L733743-130	VOCGC1	1119_72	0.199	99.5		
L733743-131 25x	VOCGC1	1119_73	0.197	98.4		
L733743-132	VOCGC1	1119_74	0.198	99.0		
LCS WG754946	VOCGC1	1119_45	0.198	99.2	0.231	116
LCSD WG754946	VOCGC1	1119_46	0.202	101	0.231	115
MS WG754946	VOCGC1	1119_47	0.195	97.7	0.223	112
MSD WG754946	VOCGC1	1119_48	0.199	99.5	0.223	112
BLANK WG754946	VOCGC1	1119_50	0.200	100	0.212	106

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754947
Analysis Date:	11/21/2014 12:26:00 PM	Analyst:	621
Instrument ID:	VOCGC7		
Sample Numbers:	L733743-135, -136, -137, -138, -143, -145, -146, -147, -151, -152, -153, -154, -155, -156, -157, -158		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-135 100x	VOCGC7	1120_45	0.194	97.2
L733743-136 50x	VOCGC7	1120_46	0.196	98.1
L733743-137 50x	VOCGC7	1120_47	0.194	97.0
L733743-138 50x	VOCGC7	1120_48	0.195	97.6
L733743-143 50x	VOCGC7	1120_49	0.194	97.1
L733743-145 100x	VOCGC7	1120_50	0.195	97.6
L733743-146 20x	VOCGC7	1120_51	0.197	98.4
L733743-147 50x	VOCGC7	1120_52	0.196	98.0
L733743-151 10x	VOCGC7	1120_60	0.193	96.7
L733743-152 10x	VOCGC7	1120_61	0.194	97.2
L733743-153	VOCGC7	1120_43	0.195	97.7
L733743-154	VOCGC7	1120_62	0.196	97.8
L733743-155	VOCGC7	1120_63	0.196	98.1
L733743-156	VOCGC7	1120_64	0.197	98.6
L733743-157	VOCGC7	1120_65	0.197	98.4
L733743-158	VOCGC7	1120_66	0.197	98.5
LCS WG754947	VOCGC7	1120_37	0.215	107
LCSD WG754947	VOCGC7	1120_38	0.213	107
MS WG754947	VOCGC7	1120_39	0.213	107
MSD WG754947	VOCGC7	1120_40	0.215	108
BLANK WG754947	VOCGC7	1120_42	0.196	98.1

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754948
Analysis Date:	11/19/2014 4:45:00 AM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-159, -160		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec
L733743-159	VOCGC12	1118_45	0.201	101		
L733743-160	VOCGC12	1118_49	0.203	101		
LCS WG754948	VOCGC12	1118_38	0.197	98.7	0.206	103
LCSD WG754948	VOCGC12	1118_39	0.198	98.9	0.206	103
MS WG754948	VOCGC12	1118_40	0.197	98.6	0.208	104
MSD WG754948	VOCGC12	1118_41	0.196	98.2	0.205	103
BLANK WG754948	VOCGC12	1118_43	0.203	101	0.205	103

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755413
Analysis Date:	11/19/2014 2:58:00 PM	Analyst:	621
Instrument ID:	VOCGC4		
Sample Numbers:	L733743-02		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-02	VOCGC4	1119_19	0.225	112
LCS WG755413	VOCGC4	1119_04	0.227	113
LCSD WG755413	VOCGC4	1119_05	0.227	113
MS WG755413	VOCGC4	1119_06	0.225	113
MSD WG755413	VOCGC4	1119_07	0.226	113
BLANK WG755413	VOCGC4	1119_09	0.224	112

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755883
Analysis Date:	11/21/2014 12:32:00 AM	Analyst:	621
Instrument ID:	VOCGC6		
Sample Numbers:	L733743-03, -04, -05, -06, -07, -08, -09, -29, -79, -93, -99		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec
L733743-03	VOCGC6	1120_17	0.198	98.9		
L733743-04	VOCGC6	1120_18	0.198	99.1		
L733743-05	VOCGC6	1120_19	0.198	99.2		
L733743-06	VOCGC6	1120_20	0.198	98.8		
L733743-07	VOCGC6	1120_21	0.197	98.7		
L733743-08	VOCGC6	1120_22	0.198	98.8		
L733743-09	VOCGC6	1120_23	0.198	98.8		
L733743-29	VOCGC6	1120_24	0.198	98.8		
L733743-79	VOCGC6	1120_25	0.198	98.9		
L733743-93	VOCGC6	1120_30	0.195	97.7		
L733743-99	VOCGC6	1120_31	0.197	98.4		
LCS WG755883	VOCGC6	1120_04	0.198	98.9	0.202	101
LCS WG755883	VOCGC6	1120_06	0.199	99.7	0.203	101
LCSD WG755883	VOCGC6	1120_07	0.199	99.5	0.204	102
LCSD WG755883	VOCGC6	1120_08	0.198	99.1	0.202	101
MS WG755883	VOCGC6	1120_09	0.196	97.8	0.201	100
MSD WG755883	VOCGC6	1120_10	0.196	97.8	0.201	100
MS WG755883	VOCGC6	1120_11	0.204	102	0.208	104
MSD WG755883	VOCGC6	1120_12	0.201	101	0.206	103
BLANK WG755883	VOCGC6	1120_15	0.198	98.9	0.203	101

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755923
Analysis Date:	11/21/2014 11:32:00 AM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-69, -70, -72, -73, -74		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec
L733743-69	VOCGC12	1121_16	0.184	92.0		
L733743-70	VOCGC12	1121_17	0.201	101		
L733743-72	VOCGC12	1121_18	0.183	91.5		
L733743-73	VOCGC12	1121_19	0.176	88.1		
L733743-74	VOCGC12	1121_20	0.180	89.9		
LCS WG755923	VOCGC12	1121_04	0.201	100	0.201	101
LCSD WG755923	VOCGC12	1121_05	0.201	100	0.202	101
LCS WG755923	VOCGC12	1121_06	0.196	97.9	0.204	102
LCSD WG755923	VOCGC12	1121_07	0.196	97.9	0.203	102
MS WG755923	VOCGC12	1121_08	0.200	100	0.202	101
MSD WG755923	VOCGC12	1121_09	0.200	100	0.201	100
MS WG755923	VOCGC12	1121_10	0.185	92.5	0.197	98.7
MSD WG755923	VOCGC12	1121_11	0.184	92.2	0.196	98.2
BLANK WG755923	VOCGC12	1121_13	0.202	101	0.204	102

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile TPH by Method 8015D/GRO		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756173
Analysis Date:	11/22/2014 5:58:00 PM	Analyst:	621
Instrument ID:	VOCGC12		
Sample Numbers:	L733743-133, -148, -149, -150		

Surrogate Summary

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec
L733743-133	VOCGC12	1122_17	0.201	100		
L733743-148	VOCGC12	1122_18	0.184	92.1		
L733743-149	VOCGC12	1122_19	0.182	91.1		
L733743-150	VOCGC12	1122_20	0.201	100		
LCS WG756173	VOCGC12	1122_04	0.202	101	0.202	101
LCSD WG756173	VOCGC12	1122_05	0.202	101	0.202	101
LCSD WG756173	VOCGC12	1122_07	0.197	98.5	0.203	102
MS WG756173	VOCGC12	1122_08	0.199	99.3	0.203	102
MSD WG756173	VOCGC12	1122_09	0.199	99.6	0.203	102
MS WG756173	VOCGC12	1122_10	0.195	97.6	0.204	102
MSD WG756173	VOCGC12	1122_11	0.194	96.8	0.202	101
BLANK WG756173	VOCGC12	1122_13	0.202	101	0.204	102
LCS WG756173	VOCGC12	1122_06	0.195	97.6	0.203	101

--A,A,A-TRIFLUOROTOLUENE(FID)

True Value: 0.2 ppm Limits: 62 - 128

--A,A,A-TRIFLUOROTOLUENE(PID)

True Value: 0.2 ppm Limits: 55 - 122

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754786
 Analysis Date: 11/18/2014 2:21:00 PM Analyst: 644
 Instrument ID: VOCMS2
 Sample Numbers: L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754909**
 Analysis Date: 11/21/2014 11:52:00 AM Analyst: 644
 Instrument ID: VOCMS20
 Sample Numbers: L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754909**
 Analysis Date: 11/21/2014 11:52:00 AM Analyst: 644
 Instrument ID: VOCMS20
 Sample Numbers: L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754914**
 Analysis Date: 11/17/2014 2:20:00 AM Analyst: 644
 Instrument ID: VOCMS14
 Sample Numbers: L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754914**
 Analysis Date: 11/17/2014 2:20:00 AM Analyst: 644
 Instrument ID: VOCMS14
 Sample Numbers: L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754915**
 Analysis Date: 11/19/2014 3:01:00 PM Analyst: 611
 Instrument ID: VOCMS25
 Sample Numbers: L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B

Project No: TX000836.0008.00004 Matrix: Water - mg/L

Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003

Collection Date: 11/11/2014 **Analytic Batch: WG754915**

Analysis Date: 11/19/2014 3:01:00 PM Analyst: 611

Instrument ID: VOCMS25

Sample Numbers: L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754916**
 Analysis Date: 11/22/2014 3:10:00 AM Analyst: 644
 Instrument ID: VOCMS7
 Sample Numbers: L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B

Project No: TX000836.0008.00004 Matrix: Water - mg/L

Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003

Collection Date: 11/11/2014 **Analytic Batch: WG754916**

Analysis Date: 11/22/2014 3:10:00 AM Analyst: 644

Instrument ID: VOCMS7

Sample Numbers: L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754917**
 Analysis Date: 11/19/2014 3:06:00 PM Analyst: 644
 Instrument ID: VOCMS30
 Sample Numbers: L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	0.00109	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B

Project No: TX000836.0008.00004 Matrix: Water - mg/L

Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003

Collection Date: 11/11/2014 **Analytic Batch: WG754917**

Analysis Date: 11/19/2014 3:06:00 PM Analyst: 644

Instrument ID: VOCMS30

Sample Numbers: L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754918**
 Analysis Date: 11/20/2014 5:53:00 AM Analyst: 644
 Instrument ID: VOCMS2
 Sample Numbers: L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B

Project No: TX000836.0008.00004 Matrix: Water - mg/L

Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003

Collection Date: 11/11/2014 **Analytic Batch: WG754918**

Analysis Date: 11/20/2014 5:53:00 AM Analyst: 644

Instrument ID: VOCMS2

Sample Numbers: L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754919**
 Analysis Date: 11/21/2014 10:42:00 PM Analyst: 644
 Instrument ID: VOCMS13
 Sample Numbers: L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B

Project No: TX000836.0008.00004 Matrix: Water - mg/L

Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003

Collection Date: 11/11/2014 **Analytic Batch: WG754919**

Analysis Date: 11/21/2014 10:42:00 PM Analyst: 644

Instrument ID: VOCMS13

Sample Numbers: L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG755736
 Analysis Date: 11/20/2014 4:24:00 PM Analyst: 644
 Instrument ID: VOCMS6
 Sample Numbers: L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755736**
 Analysis Date: 11/20/2014 4:24:00 PM Analyst: 644
 Instrument ID: VOCMS6
 Sample Numbers: L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG755901
 Analysis Date: 11/21/2014 1:17:00 PM Analyst: 644
 Instrument ID: VOCMS23
 Sample Numbers: L733743-128, -135, -137, -138, -139, -142, -143, -144

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	< 0.00100	< 0.000385	
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 0.0500	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00100	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
m&p-Xylenes	1330-20-7	< 0.00200	< 0.000719	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
o-Xylene	95-47-6	< 0.00100	< 0.000341	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	
Styrene	100-42-5	< 0.00100	< 0.000307	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0277	111	74.2 - 124	J4
1,1,1-Trichloroethane	1	0.025	0.0312	125	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0260	104	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0240	96	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0285	114	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0293	117	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0279	112	75 - 123	
1,2-Dibromoethane	1	0.025	0.0236	94.5	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0263	105	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0272	109	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0280	112	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1124	89.9	55 - 149	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1244	99.5	70.5 - 133	
Acetone	1	0.125	0.1146	91.6	35.6 - 163	
Benzene	1	0.025	0.0256	102	74.8 - 121	
Bromodichloromethane	1	0.025	0.0291	116	75.1 - 116	
Bromoform	1	0.025	0.0249	99.4	67.5 - 130	
Bromomethane	1	0.025	0.0320	128	49.9 - 162	
Carbon tetrachloride	1	0.025	0.0301	120	70.2 - 123	
Chlorobenzene	1	0.025	0.0261	104	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0242	96.6	74 - 121	
Chloroethane	1	0.025	0.0284	114	61.7 - 135	
Chloroform	1	0.025	0.0295	118	76 - 121	
Chloromethane	1	0.025	0.0262	105	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0278	111	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0273	109	78.2 - 120	
Ethylbenzene	1	0.025	0.0263	105	78.8 - 122	
Isopropylbenzene	1	0.025	0.0279	112	78.6 - 132	
m&p-Xylenes	1	0.05	0.0534	107	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0282	113	71.2 - 126	
Methylene Chloride	1	0.025	0.0261	104	70.3 - 120	
Naphthalene	1	0.025	0.0248	99.3	68.4 - 128	
n-Butylbenzene	1	0.025	0.0294	118	76.2 - 126	
n-Propylbenzene	1	0.025	0.0271	108	78.2 - 122	
o-Xylene	1	0.025	0.0266	106	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0286	114	74 - 131	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
sec-Butylbenzene	1	0.025	0.0280	112	74.4 - 127	
Styrene	1	0.025	0.0275	110	80.4 - 126	
Tetrachloroethene	1	0.025	0.0252	101	72.6 - 126	
Toluene	1	0.025	0.0257	103	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0286	115	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0270	108	74.3 - 123	
Trichloroethene	1	0.025	0.0258	103	77.7 - 118	
Vinyl chloride	1	0.025	0.0297	119	65.9 - 128	
Xylenes, Total	1	0.075	0.0800	107	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG754786
Analysis Date: 11/18/2014 2:21:00 PM Analyst: 644
Instrument ID: VOCMS2
Sample Numbers: L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0279	112	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0306	122	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0274	110	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0248	99.2	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0281	113	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0286	114	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0284	114	75 - 123	
1,2-Dibromoethane	1	0.025	0.0243	97.1	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0272	109	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0275	110	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0284	113	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1289	103	55 - 149	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1361	109	70.5 - 133	
Acetone	1	0.125	0.1250	100	35.6 - 163	
Benzene	1	0.025	0.0257	103	74.8 - 121	
Bromodichloromethane	1	0.025	0.0289	116	75.1 - 116	
Bromoform	1	0.025	0.0262	105	67.5 - 130	
Bromomethane	1	0.025	0.0300	120	49.9 - 162	
Carbon tetrachloride	1	0.025	0.0298	119	70.2 - 123	
Chlorobenzene	1	0.025	0.0265	106	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0251	100	74 - 121	
Chloroethane	1	0.025	0.0267	107	61.7 - 135	
Chloroform	1	0.025	0.0298	119	76 - 121	
Chloromethane	1	0.025	0.0253	101	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0279	112	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0279	112	78.2 - 120	
Ethylbenzene	1	0.025	0.0265	106	78.8 - 122	
Isopropylbenzene	1	0.025	0.0280	112	78.6 - 132	
m&p-Xylenes	1	0.05	0.0534	107	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0290	116	71.2 - 126	
Methylene Chloride	1	0.025	0.0263	105	70.3 - 120	
Naphthalene	1	0.025	0.0260	104	68.4 - 128	
n-Butylbenzene	1	0.025	0.0297	119	76.2 - 126	
n-Propylbenzene	1	0.025	0.0276	110	78.2 - 122	
o-Xylene	1	0.025	0.0272	109	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0289	115	74 - 131	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754786
Analysis Date:	11/18/2014 2:21:00 PM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
sec-Butylbenzene	1	0.025	0.0285	114	74.4 - 127	
Styrene	1	0.025	0.0280	112	80.4 - 126	
Tetrachloroethene	1	0.025	0.0252	101	72.6 - 126	
Toluene	1	0.025	0.0255	102	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0287	115	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0279	111	74.3 - 123	
Trichloroethene	1	0.025	0.0257	103	77.7 - 118	
Vinyl chloride	1	0.025	0.0285	114	65.9 - 128	
Xylenes, Total	1	0.075	0.0806	108	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG754786
Analysis Date: 11/18/2014 2:21:00 PM Analyst: 644
Instrument ID: VOCMS2
Sample Numbers: L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0277	111	0.0279	112	74.2 - 124		0.67	20
1,1,1-Trichloroethane	1	0.025	0.0312	125	0.0306	122	73.2 - 123	J4	1.79	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0260	104	0.0274	110	70.7 - 122		5.18	20
1,1,2-Trichloroethane	1	0.025	0.0240	96	0.0248	99.2	77.7 - 118		3.2	20
1,1-Dichloroethane	1	0.025	0.0285	114	0.0281	113	70.7 - 126		1.19	20
1,1-Dichloroethene	1	0.025	0.0293	117	0.0286	114	67.8 - 129		2.51	20
1,2,4-Trimethylbenzene	1	0.025	0.0279	112	0.0284	114	75 - 123		1.75	20
1,2-Dibromoethane	1	0.025	0.0236	94.5	0.0243	97.1	76.6 - 121		2.67	20
1,2-Dichloroethane	1	0.025	0.0263	105	0.0272	109	68.8 - 124		3.49	20
1,2-Dichloropropane	1	0.025	0.0272	109	0.0275	110	76.5 - 119		1.18	20
1,3,5-Trimethylbenzene	1	0.025	0.0280	112	0.0284	113	75.6 - 124		1.34	20
2-Butanone (MEK)	1	0.125	0.1124	89.9	0.1289	103	55 - 149		13.7	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1244	99.5	0.1361	109	70.5 - 133		8.96	20
Acetone	1	0.125	0.1146	91.6	0.1250	100	35.6 - 163		8.71	23.9
Benzene	1	0.025	0.0256	102	0.0257	103	74.8 - 121		0.53	20
Bromodichloromethane	1	0.025	0.0291	116	0.0289	116	75.1 - 116		0.76	20
Bromoform	1	0.025	0.0249	99.4	0.0262	105	67.5 - 130		5.2	20
Bromomethane	1	0.025	0.0320	128	0.0300	120	49.9 - 162		6.7	20
Carbon tetrachloride	1	0.025	0.0301	120	0.0298	119	70.2 - 123		0.93	20
Chlorobenzene	1	0.025	0.0261	104	0.0265	106	78.1 - 119		1.64	20
Chlorodibromomethane	1	0.025	0.0242	96.6	0.0251	100	74 - 121		3.78	20
Chloroethane	1	0.025	0.0284	114	0.0267	107	61.7 - 135		6.39	20
Chloroform	1	0.025	0.0295	118	0.0298	119	76 - 121		0.75	20
Chloromethane	1	0.025	0.0262	105	0.0253	101	61.5 - 129		3.31	20
cis-1,2-Dichloroethene	1	0.025	0.0278	111	0.0279	112	76 - 119		0.18	20
cis-1,3-Dichloropropene	1	0.025	0.0273	109	0.0279	112	78.2 - 120		2.15	20
Ethylbenzene	1	0.025	0.0263	105	0.0265	106	78.8 - 122		0.76	20
Isopropylbenzene	1	0.025	0.0279	112	0.0280	112	78.6 - 132		0.29	20
m&p-Xylenes	1	0.05	0.0534	107	0.0534	107	78.8 - 121		0.11	20
Methyl tert-butyl ether	1	0.025	0.0282	113	0.0290	116	71.2 - 126		2.8	20
Methylene Chloride	1	0.025	0.0261	104	0.0263	105	70.3 - 120		0.82	20
Naphthalene	1	0.025	0.0248	99.3	0.0260	104	68.4 - 128		4.41	20
n-Butylbenzene	1	0.025	0.0294	118	0.0297	119	76.2 - 126		1.12	20
n-Propylbenzene	1	0.025	0.0271	108	0.0276	110	78.2 - 122		1.79	20
o-Xylene	1	0.025	0.0266	106	0.0272	109	77.6 - 122		2.21	20
p-Isopropyltoluene	1	0.025	0.0286	114	0.0289	115	74 - 131		1.02	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754786**
 Analysis Date: 11/18/2014 2:21:00 PM Analyst: 644
 Instrument ID: VOCMS2
 Sample Numbers: L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	% RPD	Control RPD Limits	Qual
sec-Butylbenzene	1	0.025	0.0280	112	0.0285	114	74.4 - 127		1.79	20	
Styrene	1	0.025	0.0275	110	0.0280	112	80.4 - 126		2.11	20	
Tetrachloroethene	1	0.025	0.0252	101	0.0252	101	72.6 - 126		0.14	20	
Toluene	1	0.025	0.0257	103	0.0255	102	79.7 - 116		0.88	20	
trans-1,2-Dichloroethene	1	0.025	0.0286	115	0.0287	115	72.6 - 121		0.35	20	
trans-1,3-Dichloropropene	1	0.025	0.0270	108	0.0279	111	74.3 - 123		3.13	20	
Trichloroethene	1	0.025	0.0258	103	0.0257	103	77.7 - 118		0.3	20	
Vinyl chloride	1	0.025	0.0297	119	0.0285	114	65.9 - 128		4.13	20	
Xylenes, Total	1	0.075	0.0800	107	0.0806	108	78.7 - 121		0.81	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0262	105	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0253	101	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0301	120	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0258	103	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0255	102	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0268	107	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0256	102	75 - 123	
1,2-Dibromoethane	1	0.025	0.0255	102	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0262	105	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0259	103	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0253	101	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1409	113	55 - 149	
2-Hexanone	1	0.125	0.1573	126	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1581	126	70.5 - 133	
Acetone	1	0.125	0.1140	91.2	35.6 - 163	
Benzene	1	0.025	0.0240	96	74.8 - 121	
Bromodichloromethane	1	0.025	0.0283	113	75.1 - 116	
Bromoform	1	0.025	0.0276	110	67.5 - 130	
Bromomethane	1	0.025	0.0233	93.2	49.9 - 162	
Carbon disulfide	1	0.025	0.0246	98.3	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0250	100	70.2 - 123	
Chlorobenzene	1	0.025	0.0250	99.8	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0251	101	74 - 121	
Chloroethane	1	0.025	0.0219	87.7	61.7 - 135	
Chloroform	1	0.025	0.0269	108	76 - 121	
Chloromethane	1	0.025	0.0212	84.7	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0249	99.8	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0271	108	78.2 - 120	
Ethylbenzene	1	0.025	0.0242	96.9	78.8 - 122	
Isopropylbenzene	1	0.025	0.0249	99.7	78.6 - 132	
m&p-Xylenes	1	0.05	0.0481	96.2	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0278	111	71.2 - 126	
Methylene Chloride	1	0.025	0.0227	90.7	70.3 - 120	
Naphthalene	1	0.025	0.0317	127	68.4 - 128	
n-Butylbenzene	1	0.025	0.0269	108	76.2 - 126	
n-Propylbenzene	1	0.025	0.0246	98.5	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0243	97.1	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0257	103	74 - 131	
sec-Butylbenzene	1	0.025	0.0250	99.9	74.4 - 127	
Styrene	1	0.025	0.0259	104	80.4 - 126	
Tetrachloroethene	1	0.025	0.0240	95.9	72.6 - 126	
Toluene	1	0.025	0.0237	94.9	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0251	101	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0275	110	74.3 - 123	
Trichloroethene	1	0.025	0.0251	100	77.7 - 118	
Vinyl chloride	1	0.025	0.0253	101	65.9 - 128	
Xylenes, Total	1	0.075	0.0724	96.5	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0253	101	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0249	99.8	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0263	105	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0250	100	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0249	99.5	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0256	102	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0245	98.1	75 - 123	
1,2-Dibromoethane	1	0.025	0.0248	99.2	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0261	104	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0258	103	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0244	97.7	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1359	109	55 - 149	
2-Hexanone	1	0.125	0.1368	109	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1428	114	70.5 - 133	
Acetone	1	0.125	0.1094	87.5	35.6 - 163	
Benzene	1	0.025	0.0236	94.2	74.8 - 121	
Bromodichloromethane	1	0.025	0.0275	110	75.1 - 116	
Bromoform	1	0.025	0.0250	100	67.5 - 130	
Bromomethane	1	0.025	0.0229	91.5	49.9 - 162	
Carbon disulfide	1	0.025	0.0236	94.3	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0248	99	70.2 - 123	
Chlorobenzene	1	0.025	0.0244	97.7	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0239	95.6	74 - 121	
Chloroethane	1	0.025	0.0218	87.3	61.7 - 135	
Chloroform	1	0.025	0.0262	105	76 - 121	
Chloromethane	1	0.025	0.0200	80	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0245	98	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0270	108	78.2 - 120	
Ethylbenzene	1	0.025	0.0238	95.4	78.8 - 122	
Isopropylbenzene	1	0.025	0.0241	96.2	78.6 - 132	
m&p-Xylenes	1	0.05	0.0474	94.8	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0272	109	71.2 - 126	
Methylene Chloride	1	0.025	0.0220	88.1	70.3 - 120	
Naphthalene	1	0.025	0.0280	112	68.4 - 128	
n-Butylbenzene	1	0.025	0.0271	108	76.2 - 126	
n-Propylbenzene	1	0.025	0.0238	95.2	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0235	94	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0249	99.5	74 - 131	
sec-Butylbenzene	1	0.025	0.0243	97.1	74.4 - 127	
Styrene	1	0.025	0.0252	101	80.4 - 126	
Tetrachloroethene	1	0.025	0.0233	93	72.6 - 126	
Toluene	1	0.025	0.0233	93.2	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0242	96.8	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0277	111	74.3 - 123	
Trichloroethene	1	0.025	0.0237	94.6	77.7 - 118	
Vinyl chloride	1	0.025	0.0242	96.6	65.9 - 128	
Xylenes, Total	1	0.075	0.0709	94.5	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG754787
Analysis Date: 11/19/2014 12:35:00 AM Analyst: 644
Instrument ID: VOCMS2
Sample Numbers: L733743-21

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0262	105	0.0253	101	74.2 - 124	3.4	20	
1,1,1-Trichloroethane	1	0.025	0.0253	101	0.0249	99.8	73.2 - 123	1.54	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0301	120	0.0263	105	70.7 - 122	13.6	20	
1,1,2-Trichloroethane	1	0.025	0.0258	103	0.0250	100	77.7 - 118	3.01	20	
1,1-Dichloroethane	1	0.025	0.0255	102	0.0249	99.5	70.7 - 126	2.35	20	
1,1-Dichloroethene	1	0.025	0.0268	107	0.0256	102	67.8 - 129	4.94	20	
1,2,4-Trimethylbenzene	1	0.025	0.0256	102	0.0245	98.1	75 - 123	4.16	20	
1,2-Dibromoethane	1	0.025	0.0255	102	0.0248	99.2	76.6 - 121	2.83	20	
1,2-Dichloroethane	1	0.025	0.0262	105	0.0261	104	68.8 - 124	0.4	20	
1,2-Dichloropropane	1	0.025	0.0259	103	0.0258	103	76.5 - 119	0.39	20	
1,3,5-Trimethylbenzene	1	0.025	0.0253	101	0.0244	97.7	75.6 - 124	3.33	20	
2-Butanone (MEK)	1	0.125	0.1409	113	0.1359	109	55 - 149	3.62	20	
2-Hexanone	1	0.125	0.1573	126	0.1368	109	65.6 - 144	13.9	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1581	126	0.1428	114	70.5 - 133	10.2	20	
Acetone	1	0.125	0.1140	91.2	0.1094	87.5	35.6 - 163	4.14	23.9	
Benzene	1	0.025	0.0240	96	0.0236	94.2	74.8 - 121	1.93	20	
Bromodichloromethane	1	0.025	0.0283	113	0.0275	110	75.1 - 116	2.82	20	
Bromoform	1	0.025	0.0276	110	0.0250	100	67.5 - 130	9.79	20	
Bromomethane	1	0.025	0.0233	93.2	0.0229	91.5	49.9 - 162	1.82	20	
Carbon disulfide	1	0.025	0.0246	98.3	0.0236	94.3	64.6 - 140	4.11	20	
Carbon tetrachloride	1	0.025	0.0250	100	0.0248	99	70.2 - 123	1.15	20	
Chlorobenzene	1	0.025	0.0250	99.8	0.0244	97.7	78.1 - 119	2.13	20	
Chlorodibromomethane	1	0.025	0.0251	101	0.0239	95.6	74 - 121	4.96	20	
Chloroethane	1	0.025	0.0219	87.7	0.0218	87.3	61.7 - 135	0.39	20	
Chloroform	1	0.025	0.0269	108	0.0262	105	76 - 121	2.77	20	
Chloromethane	1	0.025	0.0212	84.7	0.0200	80	61.5 - 129	5.69	20	
cis-1,2-Dichloroethene	1	0.025	0.0249	99.8	0.0245	98	76 - 119	1.82	20	
cis-1,3-Dichloropropene	1	0.025	0.0271	108	0.0270	108	78.2 - 120	0.53	20	
Ethylbenzene	1	0.025	0.0242	96.9	0.0238	95.4	78.8 - 122	1.57	20	
Isopropylbenzene	1	0.025	0.0249	99.7	0.0241	96.2	78.6 - 132	3.52	20	
m&p-Xylenes	1	0.05	0.0481	96.2	0.0474	94.8	78.8 - 121	1.46	20	
Methyl tert-butyl ether	1	0.025	0.0278	111	0.0272	109	71.2 - 126	2.05	20	
Methylene Chloride	1	0.025	0.0227	90.7	0.0220	88.1	70.3 - 120	2.92	20	
Naphthalene	1	0.025	0.0317	127	0.0280	112	68.4 - 128	12.4	20	
n-Butylbenzene	1	0.025	0.0269	108	0.0271	108	76.2 - 126	0.7	20	
n-Propylbenzene	1	0.025	0.0246	98.5	0.0238	95.2	78.2 - 122	3.39	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
o-Xylene	1	0.025	0.0243	97.1	0.0235	94	77.6 - 122		3.23	20
p-Isopropyltoluene	1	0.025	0.0257	103	0.0249	99.5	74 - 131		3.24	20
sec-Butylbenzene	1	0.025	0.0250	99.9	0.0243	97.1	74.4 - 127		2.81	20
Styrene	1	0.025	0.0259	104	0.0252	101	80.4 - 126		2.6	20
Tetrachloroethene	1	0.025	0.0240	95.9	0.0233	93	72.6 - 126		3.11	20
Toluene	1	0.025	0.0237	94.9	0.0233	93.2	79.7 - 116		1.85	20
trans-1,2-Dichloroethene	1	0.025	0.0251	101	0.0242	96.8	72.6 - 121		3.72	20
trans-1,3-Dichloropropene	1	0.025	0.0275	110	0.0277	111	74.3 - 123		0.63	20
Trichloroethene	1	0.025	0.0251	100	0.0237	94.6	77.7 - 118		5.93	20
Vinyl chloride	1	0.025	0.0253	101	0.0242	96.6	65.9 - 128		4.71	20
Xylenes, Total	1	0.075	0.0724	96.5	0.0709	94.5	78.7 - 121		2.05	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754909**
 Analysis Date: 11/21/2014 11:52:00 AM Analyst: 644
 Instrument ID: VOCMS20
 Sample Numbers: L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0282	113	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0245	97.9	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0302	121	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0274	110	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0261	104	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0228	91.1	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0280	112	75 - 123	
1,2-Dibromoethane	1	0.025	0.0281	113	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0226	90.3	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0281	113	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0281	112	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1385	111	55 - 149	
2-Hexanone	1	0.125	0.1609	129	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1532	123	70.5 - 133	
Acetone	1	0.125	0.1106	88.5	35.6 - 163	
Benzene	1	0.025	0.0252	101	74.8 - 121	
Bromodichloromethane	1	0.025	0.0248	99.1	75.1 - 116	
Bromoform	1	0.025	0.0310	124	67.5 - 130	
Bromomethane	1	0.025	0.0403	161	49.9 - 162	
Carbon disulfide	1	0.025	0.0242	96.6	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0248	99.1	70.2 - 123	
Chlorobenzene	1	0.025	0.0282	113	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0272	109	74 - 121	
Chloroethane	1	0.025	0.0223	89.1	61.7 - 135	
Chloroform	1	0.025	0.0243	97.1	76 - 121	
Chloromethane	1	0.025	0.0264	106	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0260	104	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0284	114	78.2 - 120	
Ethylbenzene	1	0.025	0.0284	113	78.8 - 122	
Isopropylbenzene	1	0.025	0.0288	115	78.6 - 132	
m&p-Xylenes	1	0.05	0.0577	115	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0256	102	71.2 - 126	
Methylene Chloride	1	0.025	0.0231	92.5	70.3 - 120	
Naphthalene	1	0.025	0.0289	116	68.4 - 128	
n-Butylbenzene	1	0.025	0.0274	109	76.2 - 126	
n-Propylbenzene	1	0.025	0.0279	112	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754909**
 Analysis Date: 11/21/2014 11:52:00 AM Analyst: 644
 Instrument ID: VOCMS20
 Sample Numbers: L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0286	114	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0310	124	74 - 131	
sec-Butylbenzene	1	0.025	0.0295	118	74.4 - 127	
Styrene	1	0.025	0.0281	112	80.4 - 126	
Tetrachloroethene	1	0.025	0.0300	120	72.6 - 126	
Toluene	1	0.025	0.0263	105	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0262	105	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0285	114	74.3 - 123	
Trichloroethene	1	0.025	0.0247	98.7	77.7 - 118	
Vinyl chloride	1	0.025	0.0237	94.8	65.9 - 128	
Xylenes, Total	1	0.075	0.0863	115	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754909**
 Analysis Date: 11/21/2014 11:52:00 AM Analyst: 644
 Instrument ID: VOCMS20
 Sample Numbers: L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0262	105	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0235	93.9	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0277	111	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0259	103	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0250	100	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0225	90.1	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0265	106	75 - 123	
1,2-Dibromoethane	1	0.025	0.0262	105	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0216	86.2	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0273	109	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0264	106	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1350	108	55 - 149	
2-Hexanone	1	0.125	0.1473	118	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1501	120	70.5 - 133	
Acetone	1	0.125	0.1036	82.9	35.6 - 163	
Benzene	1	0.025	0.0249	99.7	74.8 - 121	
Bromodichloromethane	1	0.025	0.0246	98.3	75.1 - 116	
Bromoform	1	0.025	0.0294	118	67.5 - 130	
Bromomethane	1	0.025	0.0408	163	49.9 - 162	J4
Carbon disulfide	1	0.025	0.0238	95.2	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0261	104	70.2 - 123	
Chlorobenzene	1	0.025	0.0260	104	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0259	103	74 - 121	
Chloroethane	1	0.025	0.0238	95.1	61.7 - 135	
Chloroform	1	0.025	0.0239	95.6	76 - 121	
Chloromethane	1	0.025	0.0251	100	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0257	103	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0283	113	78.2 - 120	
Ethylbenzene	1	0.025	0.0261	105	78.8 - 122	
Isopropylbenzene	1	0.025	0.0269	108	78.6 - 132	
m&p-Xylenes	1	0.05	0.0540	108	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0248	99	71.2 - 126	
Methylene Chloride	1	0.025	0.0231	92.4	70.3 - 120	
Naphthalene	1	0.025	0.0280	112	68.4 - 128	
n-Butylbenzene	1	0.025	0.0269	108	76.2 - 126	
n-Propylbenzene	1	0.025	0.0258	103	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754909**
 Analysis Date: 11/21/2014 11:52:00 AM Analyst: 644
 Instrument ID: VOCMS20
 Sample Numbers: L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0266	106	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0292	117	74 - 131	
sec-Butylbenzene	1	0.025	0.0279	112	74.4 - 127	
Styrene	1	0.025	0.0260	104	80.4 - 126	
Tetrachloroethene	1	0.025	0.0280	112	72.6 - 126	
Toluene	1	0.025	0.0259	104	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0262	105	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0278	111	74.3 - 123	
Trichloroethene	1	0.025	0.0251	101	77.7 - 118	
Vinyl chloride	1	0.025	0.0237	94.7	65.9 - 128	
Xylenes, Total	1	0.075	0.0806	107	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754909
 Analysis Date: 11/21/2014 11:52:00 AM Analyst: 644
 Instrument ID: VOCMS20
 Sample Numbers: L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0282	113	0.0262	105	74.2 - 124		7.52	20
1,1,1-Trichloroethane	1	0.025	0.0245	97.9	0.0235	93.9	73.2 - 123		4.15	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0302	121	0.0277	111	70.7 - 122		8.66	20
1,1,2-Trichloroethane	1	0.025	0.0274	110	0.0259	103	77.7 - 118		5.85	20
1,1-Dichloroethane	1	0.025	0.0261	104	0.0250	100	70.7 - 126		4.05	20
1,1-Dichloroethene	1	0.025	0.0228	91.1	0.0225	90.1	67.8 - 129		1.09	20
1,2,4-Trimethylbenzene	1	0.025	0.0280	112	0.0265	106	75 - 123		5.72	20
1,2-Dibromoethane	1	0.025	0.0281	113	0.0262	105	76.6 - 121		6.96	20
1,2-Dichloroethane	1	0.025	0.0226	90.3	0.0216	86.2	68.8 - 124		4.67	20
1,2-Dichloropropane	1	0.025	0.0281	113	0.0273	109	76.5 - 119		3	20
1,3,5-Trimethylbenzene	1	0.025	0.0281	112	0.0264	106	75.6 - 124		6.15	20
2-Butanone (MEK)	1	0.125	0.1385	111	0.1350	108	55 - 149		2.51	20
2-Hexanone	1	0.125	0.1609	129	0.1473	118	65.6 - 144		8.81	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1532	123	0.1501	120	70.5 - 133		2.05	20
Acetone	1	0.125	0.1106	88.5	0.1036	82.9	35.6 - 163		6.53	23.9
Benzene	1	0.025	0.0252	101	0.0249	99.7	74.8 - 121		1.24	20
Bromodichloromethane	1	0.025	0.0248	99.1	0.0246	98.3	75.1 - 116		0.8	20
Bromoform	1	0.025	0.0310	124	0.0294	118	67.5 - 130		5.32	20
Bromomethane	1	0.025	0.0403	161	0.0408	163	49.9 - 162	J4	1.35	20
Carbon disulfide	1	0.025	0.0242	96.6	0.0238	95.2	64.6 - 140		1.48	20
Carbon tetrachloride	1	0.025	0.0248	99.1	0.0261	104	70.2 - 123		5.07	20
Chlorobenzene	1	0.025	0.0282	113	0.0260	104	78.1 - 119		7.91	20
Chlorodibromomethane	1	0.025	0.0272	109	0.0259	103	74 - 121		5.21	20
Chloroethane	1	0.025	0.0223	89.1	0.0238	95.1	61.7 - 135		6.46	20
Chloroform	1	0.025	0.0243	97.1	0.0239	95.6	76 - 121		1.54	20
Chloromethane	1	0.025	0.0264	106	0.0251	100	61.5 - 129		5.07	20
cis-1,2-Dichloroethene	1	0.025	0.0260	104	0.0257	103	76 - 119		1.14	20
cis-1,3-Dichloropropene	1	0.025	0.0284	114	0.0283	113	78.2 - 120		0.31	20
Ethylbenzene	1	0.025	0.0284	113	0.0261	105	78.8 - 122		8.19	20
Isopropylbenzene	1	0.025	0.0288	115	0.0269	108	78.6 - 132		6.78	20
m&p-Xylenes	1	0.05	0.0577	115	0.0540	108	78.8 - 121		6.67	20
Methyl tert-butyl ether	1	0.025	0.0256	102	0.0248	99	71.2 - 126		3.29	20
Methylene Chloride	1	0.025	0.0231	92.5	0.0231	92.4	70.3 - 120		0.04	20
Naphthalene	1	0.025	0.0289	116	0.0280	112	68.4 - 128		3.25	20
n-Butylbenzene	1	0.025	0.0274	109	0.0269	108	76.2 - 126		1.53	20
n-Propylbenzene	1	0.025	0.0279	112	0.0258	103	78.2 - 122		7.77	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754909**
 Analysis Date: 11/21/2014 11:52:00 AM Analyst: 644
 Instrument ID: VOCMS20
 Sample Numbers: L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
o-Xylene	1	0.025	0.0286	114	0.0266	106	77.6 - 122	7.28	20	
p-Isopropyltoluene	1	0.025	0.0310	124	0.0292	117	74 - 131	5.81	20	
sec-Butylbenzene	1	0.025	0.0295	118	0.0279	112	74.4 - 127	5.44	20	
Styrene	1	0.025	0.0281	112	0.0260	104	80.4 - 126	7.67	20	
Tetrachloroethene	1	0.025	0.0300	120	0.0280	112	72.6 - 126	6.62	20	
Toluene	1	0.025	0.0263	105	0.0259	104	79.7 - 116	1.26	20	
trans-1,2-Dichloroethene	1	0.025	0.0262	105	0.0262	105	72.6 - 121	0.03	20	
trans-1,3-Dichloropropene	1	0.025	0.0285	114	0.0278	111	74.3 - 123	2.66	20	
Trichloroethene	1	0.025	0.0247	98.7	0.0251	101	77.7 - 118	1.77	20	
Vinyl chloride	1	0.025	0.0237	94.8	0.0237	94.7	65.9 - 128	0.16	20	
Xylenes, Total	1	0.075	0.0863	115	0.0806	107	78.7 - 121	6.88	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754914**
 Analysis Date: 11/17/2014 2:20:00 AM Analyst: 644
 Instrument ID: VOCMS14
 Sample Numbers: L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0230	92.1	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0270	108	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0244	97.5	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0245	98	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0249	99.5	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0237	94.9	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0261	104	75 - 123	
1,2-Dibromoethane	1	0.025	0.0244	97.8	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0224	89.4	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0256	102	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0263	105	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1288	103	55 - 149	
2-Hexanone	1	0.125	0.1222	97.8	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1279	102	70.5 - 133	
Acetone	1	0.125	0.1147	91.7	35.6 - 163	
Benzene	1	0.025	0.0267	107	74.8 - 121	
Bromodichloromethane	1	0.025	0.0218	87	75.1 - 116	
Bromoform	1	0.025	0.0217	86.9	67.5 - 130	
Bromomethane	1	0.025	0.0270	108	49.9 - 162	
Carbon disulfide	1	0.025	0.0184	73.4	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0269	108	70.2 - 123	
Chlorobenzene	1	0.025	0.0261	104	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0214	85.7	74 - 121	
Chloroethane	1	0.025	0.0254	101	61.7 - 135	
Chloroform	1	0.025	0.0265	106	76 - 121	
Chloromethane	1	0.025	0.0253	101	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0265	106	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0229	91.4	78.2 - 120	
Ethylbenzene	1	0.025	0.0262	105	78.8 - 122	
Isopropylbenzene	1	0.025	0.0267	107	78.6 - 132	
m&p-Xylenes	1	0.05	0.0521	104	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0248	99.3	71.2 - 126	
Methylene Chloride	1	0.025	0.0249	99.6	70.3 - 120	
Naphthalene	1	0.025	0.0242	96.9	68.4 - 128	
n-Butylbenzene	1	0.025	0.0284	113	76.2 - 126	
n-Propylbenzene	1	0.025	0.0263	105	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754914**
 Analysis Date: 11/17/2014 2:20:00 AM Analyst: 644
 Instrument ID: VOCMS14
 Sample Numbers: L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0265	106	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0272	109	74 - 131	
sec-Butylbenzene	1	0.025	0.0270	108	74.4 - 127	
Styrene	1	0.025	0.0255	102	80.4 - 126	
Tetrachloroethene	1	0.025	0.0241	96.2	72.6 - 126	
Toluene	1	0.025	0.0258	103	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0257	103	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0214	85.4	74.3 - 123	
Trichloroethene	1	0.025	0.0254	101	77.7 - 118	
Vinyl chloride	1	0.025	0.0257	103	65.9 - 128	
Xylenes, Total	1	0.075	0.0786	105	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754914**
 Analysis Date: 11/17/2014 2:20:00 AM Analyst: 644
 Instrument ID: VOCMS14
 Sample Numbers: L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0244	97.7	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0278	111	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0264	106	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0258	103	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0265	106	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0242	96.7	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0279	112	75 - 123	
1,2-Dibromoethane	1	0.025	0.0258	103	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0220	87.9	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0253	101	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0288	115	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1144	91.5	55 - 149	
2-Hexanone	1	0.125	0.1221	97.7	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1185	94.8	70.5 - 133	
Acetone	1	0.125	0.1050	84	35.6 - 163	
Benzene	1	0.025	0.0274	110	74.8 - 121	
Bromodichloromethane	1	0.025	0.0221	88.3	75.1 - 116	
Bromoform	1	0.025	0.0214	85.6	67.5 - 130	
Bromomethane	1	0.025	0.0299	120	49.9 - 162	
Carbon disulfide	1	0.025	0.0189	75.8	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0273	109	70.2 - 123	
Chlorobenzene	1	0.025	0.0285	114	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0234	93.6	74 - 121	
Chloroethane	1	0.025	0.0282	113	61.7 - 135	
Chloroform	1	0.025	0.0275	110	76 - 121	
Chloromethane	1	0.025	0.0255	102	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0265	106	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0231	92.3	78.2 - 120	
Ethylbenzene	1	0.025	0.0293	117	78.8 - 122	
Isopropylbenzene	1	0.025	0.0287	115	78.6 - 132	
m&p-Xylenes	1	0.05	0.0567	113	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0249	99.8	71.2 - 126	
Methylene Chloride	1	0.025	0.0261	105	70.3 - 120	
Naphthalene	1	0.025	0.0238	95.1	68.4 - 128	
n-Butylbenzene	1	0.025	0.0291	116	76.2 - 126	
n-Propylbenzene	1	0.025	0.0286	115	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754914**
 Analysis Date: 11/17/2014 2:20:00 AM Analyst: 644
 Instrument ID: VOCMS14
 Sample Numbers: L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0286	115	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0300	120	74 - 131	
sec-Butylbenzene	1	0.025	0.0296	118	74.4 - 127	
Styrene	1	0.025	0.0282	113	80.4 - 126	
Tetrachloroethene	1	0.025	0.0261	104	72.6 - 126	
Toluene	1	0.025	0.0258	103	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0265	106	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0196	78.3	74.3 - 123	
Trichloroethene	1	0.025	0.0249	99.7	77.7 - 118	
Vinyl chloride	1	0.025	0.0282	113	65.9 - 128	
Xylenes, Total	1	0.075	0.0854	114	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG754914
Analysis Date: 11/17/2014 2:20:00 AM Analyst: 644
Instrument ID: VOCMS14
Sample Numbers: L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0230	92.1	0.0244	97.7	74.2 - 124	5.93	20	
1,1,1-Trichloroethane	1	0.025	0.0270	108	0.0278	111	73.2 - 123	2.87	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0244	97.5	0.0264	106	70.7 - 122	7.96	20	
1,1,2-Trichloroethane	1	0.025	0.0245	98	0.0258	103	77.7 - 118	4.96	20	
1,1-Dichloroethane	1	0.025	0.0249	99.5	0.0265	106	70.7 - 126	6.41	20	
1,1-Dichloroethene	1	0.025	0.0237	94.9	0.0242	96.7	67.8 - 129	1.84	20	
1,2,4-Trimethylbenzene	1	0.025	0.0261	104	0.0279	112	75 - 123	6.71	20	
1,2-Dibromoethane	1	0.025	0.0244	97.8	0.0258	103	76.6 - 121	5.44	20	
1,2-Dichloroethane	1	0.025	0.0224	89.4	0.0220	87.9	68.8 - 124	1.75	20	
1,2-Dichloropropane	1	0.025	0.0256	102	0.0253	101	76.5 - 119	1.04	20	
1,3,5-Trimethylbenzene	1	0.025	0.0263	105	0.0288	115	75.6 - 124	9.19	20	
2-Butanone (MEK)	1	0.125	0.1288	103	0.1144	91.5	55 - 149	11.8	20	
2-Hexanone	1	0.125	0.1222	97.8	0.1221	97.7	65.6 - 144	0.06	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1279	102	0.1185	94.8	70.5 - 133	7.69	20	
Acetone	1	0.125	0.1147	91.7	0.1050	84	35.6 - 163	8.82	23.9	
Benzene	1	0.025	0.0267	107	0.0274	110	74.8 - 121	2.69	20	
Bromodichloromethane	1	0.025	0.0218	87	0.0221	88.3	75.1 - 116	1.48	20	
Bromoform	1	0.025	0.0217	86.9	0.0214	85.6	67.5 - 130	1.52	20	
Bromomethane	1	0.025	0.0270	108	0.0299	120	49.9 - 162	10.1	20	
Carbon disulfide	1	0.025	0.0184	73.4	0.0189	75.8	64.6 - 140	3.19	20	
Carbon tetrachloride	1	0.025	0.0269	108	0.0273	109	70.2 - 123	1.2	20	
Chlorobenzene	1	0.025	0.0261	104	0.0285	114	78.1 - 119	8.75	20	
Chlorodibromomethane	1	0.025	0.0214	85.7	0.0234	93.6	74 - 121	8.86	20	
Chloroethane	1	0.025	0.0254	101	0.0282	113	61.7 - 135	10.8	20	
Chloroform	1	0.025	0.0265	106	0.0275	110	76 - 121	3.68	20	
Chloromethane	1	0.025	0.0253	101	0.0255	102	61.5 - 129	0.48	20	
cis-1,2-Dichloroethene	1	0.025	0.0265	106	0.0265	106	76 - 119	0.07	20	
cis-1,3-Dichloropropene	1	0.025	0.0229	91.4	0.0231	92.3	78.2 - 120	1.01	20	
Ethylbenzene	1	0.025	0.0262	105	0.0293	117	78.8 - 122	11.2	20	
Isopropylbenzene	1	0.025	0.0267	107	0.0287	115	78.6 - 132	7.2	20	
m&p-Xylenes	1	0.05	0.0521	104	0.0567	113	78.8 - 121	8.47	20	
Methyl tert-butyl ether	1	0.025	0.0248	99.3	0.0249	99.8	71.2 - 126	0.45	20	
Methylene Chloride	1	0.025	0.0249	99.6	0.0261	105	70.3 - 120	4.8	20	
Naphthalene	1	0.025	0.0242	96.9	0.0238	95.1	68.4 - 128	1.89	20	
n-Butylbenzene	1	0.025	0.0284	113	0.0291	116	76.2 - 126	2.51	20	
n-Propylbenzene	1	0.025	0.0263	105	0.0286	115	78.2 - 122	8.32	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754914**
 Analysis Date: 11/17/2014 2:20:00 AM Analyst: 644
 Instrument ID: VOCMS14
 Sample Numbers: L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
o-Xylene	1	0.025	0.0265	106	0.0286	115	77.6 - 122	7.96	20	
p-Isopropyltoluene	1	0.025	0.0272	109	0.0300	120	74 - 131	9.98	20	
sec-Butylbenzene	1	0.025	0.0270	108	0.0296	118	74.4 - 127	9.2	20	
Styrene	1	0.025	0.0255	102	0.0282	113	80.4 - 126	10.1	20	
Tetrachloroethene	1	0.025	0.0241	96.2	0.0261	104	72.6 - 126	8.13	20	
Toluene	1	0.025	0.0258	103	0.0258	103	79.7 - 116	0.04	20	
trans-1,2-Dichloroethene	1	0.025	0.0257	103	0.0265	106	72.6 - 121	2.91	20	
trans-1,3-Dichloropropene	1	0.025	0.0214	85.4	0.0196	78.3	74.3 - 123	8.69	20	
Trichloroethene	1	0.025	0.0254	101	0.0249	99.7	77.7 - 118	1.75	20	
Vinyl chloride	1	0.025	0.0257	103	0.0282	113	65.9 - 128	9.26	20	
Xylenes, Total	1	0.075	0.0786	105	0.0854	114	78.7 - 121	8.3	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754915
 Analysis Date: 11/19/2014 3:01:00 PM Analyst: 611
 Instrument ID: VOCMS25
 Sample Numbers: L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0270	108	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0250	99.8	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0249	99.7	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0255	102	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0230	92.1	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0233	93.1	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0252	101	75 - 123	
1,2-Dibromoethane	1	0.025	0.0261	104	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0235	94.1	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0228	91.2	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0252	101	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1071	85.7	55 - 149	
2-Hexanone	1	0.125	0.1271	102	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1178	94.2	70.5 - 133	
Acetone	1	0.125	0.1002	80.1	35.6 - 163	
Benzene	1	0.025	0.0229	91.6	74.8 - 121	
Bromodichloromethane	1	0.025	0.0238	95.3	75.1 - 116	
Bromoform	1	0.025	0.0299	120	67.5 - 130	
Bromomethane	1	0.025	0.0315	126	49.9 - 162	
Carbon disulfide	1	0.025	0.0227	90.9	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0255	102	70.2 - 123	
Chlorobenzene	1	0.025	0.0261	104	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0276	111	74 - 121	
Chloroethane	1	0.025	0.0294	118	61.7 - 135	
Chloroform	1	0.025	0.0240	95.8	76 - 121	
Chloromethane	1	0.025	0.0184	73.6	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0239	95.5	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0243	97	78.2 - 120	
Ethylbenzene	1	0.025	0.0257	103	78.8 - 122	
Isopropylbenzene	1	0.025	0.0264	105	78.6 - 132	
m&p-Xylenes	1	0.05	0.0509	102	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0233	93	71.2 - 126	
Methylene Chloride	1	0.025	0.0234	93.7	70.3 - 120	
Naphthalene	1	0.025	0.0230	92.2	68.4 - 128	
n-Butylbenzene	1	0.025	0.0242	96.7	76.2 - 126	
n-Propylbenzene	1	0.025	0.0260	104	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754915**
 Analysis Date: 11/19/2014 3:01:00 PM Analyst: 611
 Instrument ID: VOCMS25
 Sample Numbers: L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0250	99.8	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0279	111	74 - 131	
sec-Butylbenzene	1	0.025	0.0273	109	74.4 - 127	
Styrene	1	0.025	0.0253	101	80.4 - 126	
Tetrachloroethene	1	0.025	0.0288	115	72.6 - 126	
Toluene	1	0.025	0.0253	101	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0224	89.5	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0257	103	74.3 - 123	
Trichloroethene	1	0.025	0.0257	103	77.7 - 118	
Vinyl chloride	1	0.025	0.0197	78.9	65.9 - 128	
Xylenes, Total	1	0.075	0.0759	101	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754915
 Analysis Date: 11/19/2014 3:01:00 PM Analyst: 611
 Instrument ID: VOCMS25
 Sample Numbers: L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0271	109	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0258	103	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0241	96.5	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0245	98	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0231	92.4	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0240	95.9	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0249	99.8	75 - 123	
1,2-Dibromoethane	1	0.025	0.0258	103	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0228	91.3	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0226	90.6	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0249	99.8	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1039	83.1	55 - 149	
2-Hexanone	1	0.125	0.1166	93.3	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1113	89	70.5 - 133	
Acetone	1	0.125	0.0977	78.2	35.6 - 163	
Benzene	1	0.025	0.0232	93	74.8 - 121	
Bromodichloromethane	1	0.025	0.0233	93.1	75.1 - 116	
Bromoform	1	0.025	0.0279	112	67.5 - 130	
Bromomethane	1	0.025	0.0314	126	49.9 - 162	
Carbon disulfide	1	0.025	0.0229	91.4	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0265	106	70.2 - 123	
Chlorobenzene	1	0.025	0.0265	106	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0276	110	74 - 121	
Chloroethane	1	0.025	0.0301	120	61.7 - 135	
Chloroform	1	0.025	0.0241	96.3	76 - 121	
Chloromethane	1	0.025	0.0188	75.4	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0238	95.1	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0237	94.6	78.2 - 120	
Ethylbenzene	1	0.025	0.0262	105	78.8 - 122	
Isopropylbenzene	1	0.025	0.0269	108	78.6 - 132	
m&p-Xylenes	1	0.05	0.0509	102	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0226	90.3	71.2 - 126	
Methylene Chloride	1	0.025	0.0236	94.2	70.3 - 120	
Naphthalene	1	0.025	0.0221	88.3	68.4 - 128	
n-Butylbenzene	1	0.025	0.0243	97	76.2 - 126	
n-Propylbenzene	1	0.025	0.0264	106	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754915
Analysis Date:	11/19/2014 3:01:00 PM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0248	99.3	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0280	112	74 - 131	
sec-Butylbenzene	1	0.025	0.0280	112	74.4 - 127	
Styrene	1	0.025	0.0256	102	80.4 - 126	
Tetrachloroethene	1	0.025	0.0289	116	72.6 - 126	
Toluene	1	0.025	0.0258	103	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0235	94	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0248	99.3	74.3 - 123	
Trichloroethene	1	0.025	0.0262	105	77.7 - 118	
Vinyl chloride	1	0.025	0.0198	79.3	65.9 - 128	
Xylenes, Total	1	0.075	0.0758	101	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG754915
Analysis Date: 11/19/2014 3:01:00 PM Analyst: 611
Instrument ID: VOCMS25
Sample Numbers: L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0270	108	0.0271	109	74.2 - 124	0.6	20	
1,1,1-Trichloroethane	1	0.025	0.0250	99.8	0.0258	103	73.2 - 123	3.52	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0249	99.7	0.0241	96.5	70.7 - 122	3.2	20	
1,1,2-Trichloroethane	1	0.025	0.0255	102	0.0245	98	77.7 - 118	3.99	20	
1,1-Dichloroethane	1	0.025	0.0230	92.1	0.0231	92.4	70.7 - 126	0.37	20	
1,1-Dichloroethene	1	0.025	0.0233	93.1	0.0240	95.9	67.8 - 129	2.94	20	
1,2,4-Trimethylbenzene	1	0.025	0.0252	101	0.0249	99.8	75 - 123	1.05	20	
1,2-Dibromoethane	1	0.025	0.0261	104	0.0258	103	76.6 - 121	1.32	20	
1,2-Dichloroethane	1	0.025	0.0235	94.1	0.0228	91.3	68.8 - 124	3	20	
1,2-Dichloropropane	1	0.025	0.0228	91.2	0.0226	90.6	76.5 - 119	0.7	20	
1,3,5-Trimethylbenzene	1	0.025	0.0252	101	0.0249	99.8	75.6 - 124	0.92	20	
2-Butanone (MEK)	1	0.125	0.1071	85.7	0.1039	83.1	55 - 149	3.01	20	
2-Hexanone	1	0.125	0.1271	102	0.1166	93.3	65.6 - 144	8.66	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1178	94.2	0.1113	89	70.5 - 133	5.68	20	
Acetone	1	0.125	0.1002	80.1	0.0977	78.2	35.6 - 163	2.46	23.9	
Benzene	1	0.025	0.0229	91.6	0.0232	93	74.8 - 121	1.47	20	
Bromodichloromethane	1	0.025	0.0238	95.3	0.0233	93.1	75.1 - 116	2.34	20	
Bromoform	1	0.025	0.0299	120	0.0279	112	67.5 - 130	6.86	20	
Bromomethane	1	0.025	0.0315	126	0.0314	126	49.9 - 162	0.43	20	
Carbon disulfide	1	0.025	0.0227	90.9	0.0229	91.4	64.6 - 140	0.63	20	
Carbon tetrachloride	1	0.025	0.0255	102	0.0265	106	70.2 - 123	3.63	20	
Chlorobenzene	1	0.025	0.0261	104	0.0265	106	78.1 - 119	1.28	20	
Chlorodibromomethane	1	0.025	0.0276	111	0.0276	110	74 - 121	0.14	20	
Chloroethane	1	0.025	0.0294	118	0.0301	120	61.7 - 135	2.1	20	
Chloroform	1	0.025	0.0240	95.8	0.0241	96.3	76 - 121	0.48	20	
Chloromethane	1	0.025	0.0184	73.6	0.0188	75.4	61.5 - 129	2.34	20	
cis-1,2-Dichloroethene	1	0.025	0.0239	95.5	0.0238	95.1	76 - 119	0.46	20	
cis-1,3-Dichloropropene	1	0.025	0.0243	97	0.0237	94.6	78.2 - 120	2.47	20	
Ethylbenzene	1	0.025	0.0257	103	0.0262	105	78.8 - 122	1.59	20	
Isopropylbenzene	1	0.025	0.0264	105	0.0269	108	78.6 - 132	2.12	20	
m&p-Xylenes	1	0.05	0.0509	102	0.0509	102	78.8 - 121	0.06	20	
Methyl tert-butyl ether	1	0.025	0.0233	93	0.0226	90.3	71.2 - 126	2.92	20	
Methylene Chloride	1	0.025	0.0234	93.7	0.0236	94.2	70.3 - 120	0.6	20	
Naphthalene	1	0.025	0.0230	92.2	0.0221	88.3	68.4 - 128	4.25	20	
n-Butylbenzene	1	0.025	0.0242	96.7	0.0243	97	76.2 - 126	0.36	20	
n-Propylbenzene	1	0.025	0.0260	104	0.0264	106	78.2 - 122	1.49	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754915**
 Analysis Date: 11/19/2014 3:01:00 PM Analyst: 611
 Instrument ID: VOCMS25
 Sample Numbers: L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
o-Xylene	1	0.025	0.0250	99.8	0.0248	99.3	77.6 - 122	0.51	20	
p-Isopropyltoluene	1	0.025	0.0279	111	0.0280	112	74 - 131	0.42	20	
sec-Butylbenzene	1	0.025	0.0273	109	0.0280	112	74.4 - 127	2.35	20	
Styrene	1	0.025	0.0253	101	0.0256	102	80.4 - 126	0.93	20	
Tetrachloroethene	1	0.025	0.0288	115	0.0289	116	72.6 - 126	0.45	20	
Toluene	1	0.025	0.0253	101	0.0258	103	79.7 - 116	1.9	20	
trans-1,2-Dichloroethene	1	0.025	0.0224	89.5	0.0235	94	72.6 - 121	4.94	20	
trans-1,3-Dichloropropene	1	0.025	0.0257	103	0.0248	99.3	74.3 - 123	3.57	20	
Trichloroethene	1	0.025	0.0257	103	0.0262	105	77.7 - 118	1.84	20	
Vinyl chloride	1	0.025	0.0197	78.9	0.0198	79.3	65.9 - 128	0.58	20	
Xylenes, Total	1	0.075	0.0759	101	0.0758	101	78.7 - 121	0.13	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754916**
 Analysis Date: 11/22/2014 3:10:00 AM Analyst: 644
 Instrument ID: VOCMS7
 Sample Numbers: L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0250	100	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0226	90.3	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0233	93.2	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0243	97.3	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0222	88.8	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0231	92.4	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0234	93.6	75 - 123	
1,2-Dibromoethane	1	0.025	0.0250	99.9	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0214	85.8	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0233	93.2	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0235	93.9	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1101	88.1	55 - 149	
2-Hexanone	1	0.125	0.1154	92.4	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1128	90.3	70.5 - 133	
Acetone	1	0.125	0.1014	81.1	35.6 - 163	
Benzene	1	0.025	0.0219	87.5	74.8 - 121	
Bromodichloromethane	1	0.025	0.0229	91.4	75.1 - 116	
Bromoform	1	0.025	0.0261	104	67.5 - 130	
Bromomethane	1	0.025	0.0262	105	49.9 - 162	
Carbon disulfide	1	0.025	0.0220	88	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0251	100	70.2 - 123	
Chlorobenzene	1	0.025	0.0241	96.4	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0249	99.6	74 - 121	
Chloroethane	1	0.025	0.0225	90.1	61.7 - 135	
Chloroform	1	0.025	0.0219	87.6	76 - 121	
Chloromethane	1	0.025	0.0227	90.8	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0231	92.5	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0233	93.1	78.2 - 120	
Ethylbenzene	1	0.025	0.0236	94.6	78.8 - 122	
Isopropylbenzene	1	0.025	0.0240	96.2	78.6 - 132	
m&p-Xylenes	1	0.05	0.0451	90.2	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0219	87.7	71.2 - 126	
Methylene Chloride	1	0.025	0.0212	84.9	70.3 - 120	
Naphthalene	1	0.025	0.0221	88.4	68.4 - 128	
n-Butylbenzene	1	0.025	0.0225	90.1	76.2 - 126	
n-Propylbenzene	1	0.025	0.0234	93.4	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754916**
 Analysis Date: 11/22/2014 3:10:00 AM Analyst: 644
 Instrument ID: VOCMS7
 Sample Numbers: L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0231	92.2	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0247	99	74 - 131	
sec-Butylbenzene	1	0.025	0.0240	96	74.4 - 127	
Styrene	1	0.025	0.0237	94.7	80.4 - 126	
Tetrachloroethene	1	0.025	0.0266	106	72.6 - 126	
Toluene	1	0.025	0.0220	88	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0236	94.3	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0254	101	74.3 - 123	
Trichloroethene	1	0.025	0.0243	97.1	77.7 - 118	
Vinyl chloride	1	0.025	0.0243	97.2	65.9 - 128	
Xylenes, Total	1	0.075	0.0681	90.8	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754916**
 Analysis Date: 11/22/2014 3:10:00 AM Analyst: 644
 Instrument ID: VOCMS7
 Sample Numbers: L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0249	99.5	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0221	88.2	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0232	92.9	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0244	97.7	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0218	87.3	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0224	89.6	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0231	92.3	75 - 123	
1,2-Dibromoethane	1	0.025	0.0249	99.5	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0213	85.1	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0228	91.3	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0230	92.1	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1071	85.7	55 - 149	
2-Hexanone	1	0.125	0.1158	92.6	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1111	88.9	70.5 - 133	
Acetone	1	0.125	0.0989	79.1	35.6 - 163	
Benzene	1	0.025	0.0213	85.1	74.8 - 121	
Bromodichloromethane	1	0.025	0.0226	90.4	75.1 - 116	
Bromoform	1	0.025	0.0261	104	67.5 - 130	
Bromomethane	1	0.025	0.0262	105	49.9 - 162	
Carbon disulfide	1	0.025	0.0215	85.9	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0221	88.5	70.2 - 123	
Chlorobenzene	1	0.025	0.0240	96.1	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0250	99.9	74 - 121	
Chloroethane	1	0.025	0.0221	88.5	61.7 - 135	
Chloroform	1	0.025	0.0215	85.9	76 - 121	
Chloromethane	1	0.025	0.0216	86.5	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0227	90.9	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0227	90.9	78.2 - 120	
Ethylbenzene	1	0.025	0.0236	94.3	78.8 - 122	
Isopropylbenzene	1	0.025	0.0240	96.1	78.6 - 132	
m&p-Xylenes	1	0.05	0.0448	89.7	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0217	86.7	71.2 - 126	
Methylene Chloride	1	0.025	0.0205	82.1	70.3 - 120	
Naphthalene	1	0.025	0.0221	88.2	68.4 - 128	
n-Butylbenzene	1	0.025	0.0221	88.3	76.2 - 126	
n-Propylbenzene	1	0.025	0.0233	93.2	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754916**
 Analysis Date: 11/22/2014 3:10:00 AM Analyst: 644
 Instrument ID: VOCMS7
 Sample Numbers: L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0228	91.1	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0244	97.6	74 - 131	
sec-Butylbenzene	1	0.025	0.0240	95.9	74.4 - 127	
Styrene	1	0.025	0.0236	94.5	80.4 - 126	
Tetrachloroethene	1	0.025	0.0263	105	72.6 - 126	
Toluene	1	0.025	0.0218	87.1	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0230	91.8	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0250	100	74.3 - 123	
Trichloroethene	1	0.025	0.0242	96.7	77.7 - 118	
Vinyl chloride	1	0.025	0.0234	93.6	65.9 - 128	
Xylenes, Total	1	0.075	0.0676	90.2	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG754916
Analysis Date: 11/22/2014 3:10:00 AM Analyst: 644
Instrument ID: VOCMS7
Sample Numbers: L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0250	100	0.0249	99.5	74.2 - 124	0.66	20	
1,1,1-Trichloroethane	1	0.025	0.0226	90.3	0.0221	88.2	73.2 - 123	2.3	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0233	93.2	0.0232	92.9	70.7 - 122	0.3	20	
1,1,2-Trichloroethane	1	0.025	0.0243	97.3	0.0244	97.7	77.7 - 118	0.4	20	
1,1-Dichloroethane	1	0.025	0.0222	88.8	0.0218	87.3	70.7 - 126	1.66	20	
1,1-Dichloroethene	1	0.025	0.0231	92.4	0.0224	89.6	67.8 - 129	3.09	20	
1,2,4-Trimethylbenzene	1	0.025	0.0234	93.6	0.0231	92.3	75 - 123	1.43	20	
1,2-Dibromoethane	1	0.025	0.0250	99.9	0.0249	99.5	76.6 - 121	0.34	20	
1,2-Dichloroethane	1	0.025	0.0214	85.8	0.0213	85.1	68.8 - 124	0.74	20	
1,2-Dichloropropane	1	0.025	0.0233	93.2	0.0228	91.3	76.5 - 119	1.99	20	
1,3,5-Trimethylbenzene	1	0.025	0.0235	93.9	0.0230	92.1	75.6 - 124	1.85	20	
2-Butanone (MEK)	1	0.125	0.1101	88.1	0.1071	85.7	55 - 149	2.74	20	
2-Hexanone	1	0.125	0.1154	92.4	0.1158	92.6	65.6 - 144	0.29	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1128	90.3	0.1111	88.9	70.5 - 133	1.56	20	
Acetone	1	0.125	0.1014	81.1	0.0989	79.1	35.6 - 163	2.48	23.9	
Benzene	1	0.025	0.0219	87.5	0.0213	85.1	74.8 - 121	2.81	20	
Bromodichloromethane	1	0.025	0.0229	91.4	0.0226	90.4	75.1 - 116	1.17	20	
Bromoform	1	0.025	0.0261	104	0.0261	104	67.5 - 130	0.17	20	
Bromomethane	1	0.025	0.0262	105	0.0262	105	49.9 - 162	0.26	20	
Carbon disulfide	1	0.025	0.0220	88	0.0215	85.9	64.6 - 140	2.45	20	
Carbon tetrachloride	1	0.025	0.0251	100	0.0221	88.5	70.2 - 123	12.6	20	
Chlorobenzene	1	0.025	0.0241	96.4	0.0240	96.1	78.1 - 119	0.26	20	
Chlorodibromomethane	1	0.025	0.0249	99.6	0.0250	99.9	74 - 121	0.29	20	
Chloroethane	1	0.025	0.0225	90.1	0.0221	88.5	61.7 - 135	1.85	20	
Chloroform	1	0.025	0.0219	87.6	0.0215	85.9	76 - 121	1.91	20	
Chloromethane	1	0.025	0.0227	90.8	0.0216	86.5	61.5 - 129	4.86	20	
cis-1,2-Dichloroethene	1	0.025	0.0231	92.5	0.0227	90.9	76 - 119	1.73	20	
cis-1,3-Dichloropropene	1	0.025	0.0233	93.1	0.0227	90.9	78.2 - 120	2.36	20	
Ethylbenzene	1	0.025	0.0236	94.6	0.0236	94.3	78.8 - 122	0.29	20	
Isopropylbenzene	1	0.025	0.0240	96.2	0.0240	96.1	78.6 - 132	0.14	20	
m&p-Xylenes	1	0.05	0.0451	90.2	0.0448	89.7	78.8 - 121	0.54	20	
Methyl tert-butyl ether	1	0.025	0.0219	87.7	0.0217	86.7	71.2 - 126	1.13	20	
Methylene Chloride	1	0.025	0.0212	84.9	0.0205	82.1	70.3 - 120	3.31	20	
Naphthalene	1	0.025	0.0221	88.4	0.0221	88.2	68.4 - 128	0.18	20	
n-Butylbenzene	1	0.025	0.0225	90.1	0.0221	88.3	76.2 - 126	2.02	20	
n-Propylbenzene	1	0.025	0.0234	93.4	0.0233	93.2	78.2 - 122	0.23	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754916**
 Analysis Date: 11/22/2014 3:10:00 AM Analyst: 644
 Instrument ID: VOCMS7
 Sample Numbers: L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
o-Xylene	1	0.025	0.0231	92.2	0.0228	91.1	77.6 - 122	1.17	20	
p-Isopropyltoluene	1	0.025	0.0247	99	0.0244	97.6	74 - 131	1.39	20	
sec-Butylbenzene	1	0.025	0.0240	96	0.0240	95.9	74.4 - 127	0.12	20	
Styrene	1	0.025	0.0237	94.7	0.0236	94.5	80.4 - 126	0.28	20	
Tetrachloroethene	1	0.025	0.0266	106	0.0263	105	72.6 - 126	0.97	20	
Toluene	1	0.025	0.0220	88	0.0218	87.1	79.7 - 116	1.03	20	
trans-1,2-Dichloroethene	1	0.025	0.0236	94.3	0.0230	91.8	72.6 - 121	2.7	20	
trans-1,3-Dichloropropene	1	0.025	0.0254	101	0.0250	100	74.3 - 123	1.46	20	
Trichloroethene	1	0.025	0.0243	97.1	0.0242	96.7	77.7 - 118	0.43	20	
Vinyl chloride	1	0.025	0.0243	97.2	0.0234	93.6	65.9 - 128	3.84	20	
Xylenes, Total	1	0.075	0.0681	90.8	0.0676	90.2	78.7 - 121	0.75	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG754917
Analysis Date: 11/19/2014 3:06:00 PM Analyst: 644
Instrument ID: VOCMS30
Sample Numbers: L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0253	101	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0238	95.4	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0255	102	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0259	104	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0250	100	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0235	93.8	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0245	98	75 - 123	
1,2-Dibromoethane	1	0.025	0.0262	105	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0212	84.9	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0261	104	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0254	102	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1318	105	55 - 149	
2-Hexanone	1	0.125	0.1604	128	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1395	112	70.5 - 133	
Acetone	1	0.125	0.1153	92.2	35.6 - 163	
Benzene	1	0.025	0.0239	95.8	74.8 - 121	
Bromodichloromethane	1	0.025	0.0242	96.6	75.1 - 116	
Bromoform	1	0.025	0.0255	102	67.5 - 130	
Bromomethane	1	0.025	0.0157	62.8	49.9 - 162	
Carbon disulfide	1	0.025	0.0211	84.2	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0236	94.2	70.2 - 123	
Chlorobenzene	1	0.025	0.0251	100	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0272	109	74 - 121	
Chloroethane	1	0.025	0.0133	53.1	61.7 - 135	J4
Chloroform	1	0.025	0.0245	98.1	76 - 121	
Chloromethane	1	0.025	0.0227	90.9	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0246	98.4	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0261	105	78.2 - 120	
Ethylbenzene	1	0.025	0.0251	100	78.8 - 122	
Isopropylbenzene	1	0.025	0.0266	107	78.6 - 132	
m&p-Xylenes	1	0.05	0.0501	100	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0253	101	71.2 - 126	
Methylene Chloride	1	0.025	0.0237	94.8	70.3 - 120	
Naphthalene	1	0.025	0.0332	133	68.4 - 128	J4
n-Butylbenzene	1	0.025	0.0276	110	76.2 - 126	
n-Propylbenzene	1	0.025	0.0265	106	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754917**
 Analysis Date: 11/19/2014 3:06:00 PM Analyst: 644
 Instrument ID: VOCMS30
 Sample Numbers: L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0275	110	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0247	98.9	74 - 131	
sec-Butylbenzene	1	0.025	0.0259	104	74.4 - 127	
Styrene	1	0.025	0.0266	106	80.4 - 126	
Tetrachloroethene	1	0.025	0.0238	95.3	72.6 - 126	
Toluene	1	0.025	0.0232	92.9	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0249	99.6	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0251	101	74.3 - 123	
Trichloroethene	1	0.025	0.0244	97.8	77.7 - 118	
Vinyl chloride	1	0.025	0.0209	83.6	65.9 - 128	
Xylenes, Total	1	0.075	0.0775	103	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG754917
Analysis Date: 11/19/2014 3:06:00 PM Analyst: 644
Instrument ID: VOCMS30
Sample Numbers: L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0252	101	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0229	91.7	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0261	104	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0271	108	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0246	98.4	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0230	91.9	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0250	100	75 - 123	
1,2-Dibromoethane	1	0.025	0.0263	105	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0202	80.8	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0258	103	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0259	103	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1283	103	55 - 149	
2-Hexanone	1	0.125	0.1577	126	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1390	111	70.5 - 133	
Acetone	1	0.125	0.1105	88.4	35.6 - 163	
Benzene	1	0.025	0.0229	91.5	74.8 - 121	
Bromodichloromethane	1	0.025	0.0236	94.4	75.1 - 116	
Bromoform	1	0.025	0.0251	100	67.5 - 130	
Bromomethane	1	0.025	0.0152	60.8	49.9 - 162	
Carbon disulfide	1	0.025	0.0197	78.8	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0228	91.1	70.2 - 123	
Chlorobenzene	1	0.025	0.0248	99	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0268	107	74 - 121	
Chloroethane	1	0.025	0.0132	52.8	61.7 - 135	J4
Chloroform	1	0.025	0.0233	93.1	76 - 121	
Chloromethane	1	0.025	0.0220	87.9	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0236	94.5	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0255	102	78.2 - 120	
Ethylbenzene	1	0.025	0.0249	99.7	78.8 - 122	
Isopropylbenzene	1	0.025	0.0267	107	78.6 - 132	
m&p-Xylenes	1	0.05	0.0503	101	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0247	98.6	71.2 - 126	
Methylene Chloride	1	0.025	0.0233	93.1	70.3 - 120	
Naphthalene	1	0.025	0.0315	126	68.4 - 128	
n-Butylbenzene	1	0.025	0.0275	110	76.2 - 126	
n-Propylbenzene	1	0.025	0.0266	107	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754917**
 Analysis Date: 11/19/2014 3:06:00 PM Analyst: 644
 Instrument ID: VOCMS30
 Sample Numbers: L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0276	110	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0246	98.5	74 - 131	
sec-Butylbenzene	1	0.025	0.0260	104	74.4 - 127	
Styrene	1	0.025	0.0268	107	80.4 - 126	
Tetrachloroethene	1	0.025	0.0237	94.7	72.6 - 126	
Toluene	1	0.025	0.0225	90.1	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0242	96.9	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0245	98	74.3 - 123	
Trichloroethene	1	0.025	0.0235	94	77.7 - 118	
Vinyl chloride	1	0.025	0.0201	80.3	65.9 - 128	
Xylenes, Total	1	0.075	0.0778	104	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG754917
Analysis Date: 11/19/2014 3:06:00 PM Analyst: 644
Instrument ID: VOCMS30
Sample Numbers: L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0253	101	0.0252	101	74.2 - 124	0.16	20	
1,1,1-Trichloroethane	1	0.025	0.0238	95.4	0.0229	91.7	73.2 - 123	3.9	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0255	102	0.0261	104	70.7 - 122	2.45	20	
1,1,2-Trichloroethane	1	0.025	0.0259	104	0.0271	108	77.7 - 118	4.26	20	
1,1-Dichloroethane	1	0.025	0.0250	100	0.0246	98.4	70.7 - 126	1.65	20	
1,1-Dichloroethene	1	0.025	0.0235	93.8	0.0230	91.9	67.8 - 129	2.07	20	
1,2,4-Trimethylbenzene	1	0.025	0.0245	98	0.0250	100	75 - 123	2.22	20	
1,2-Dibromoethane	1	0.025	0.0262	105	0.0263	105	76.6 - 121	0.25	20	
1,2-Dichloroethane	1	0.025	0.0212	84.9	0.0202	80.8	68.8 - 124	4.93	20	
1,2-Dichloropropane	1	0.025	0.0261	104	0.0258	103	76.5 - 119	1.1	20	
1,3,5-Trimethylbenzene	1	0.025	0.0254	102	0.0259	103	75.6 - 124	1.66	20	
2-Butanone (MEK)	1	0.125	0.1318	105	0.1283	103	55 - 149	2.75	20	
2-Hexanone	1	0.125	0.1604	128	0.1577	126	65.6 - 144	1.67	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1395	112	0.1390	111	70.5 - 133	0.37	20	
Acetone	1	0.125	0.1153	92.2	0.1105	88.4	35.6 - 163	4.24	23.9	
Benzene	1	0.025	0.0239	95.8	0.0229	91.5	74.8 - 121	4.56	20	
Bromodichloromethane	1	0.025	0.0242	96.6	0.0236	94.4	75.1 - 116	2.34	20	
Bromoform	1	0.025	0.0255	102	0.0251	100	67.5 - 130	1.79	20	
Bromomethane	1	0.025	0.0157	62.8	0.0152	60.8	49.9 - 162	3.17	20	
Carbon disulfide	1	0.025	0.0211	84.2	0.0197	78.8	64.6 - 140	6.73	20	
Carbon tetrachloride	1	0.025	0.0236	94.2	0.0228	91.1	70.2 - 123	3.36	20	
Chlorobenzene	1	0.025	0.0251	100	0.0248	99	78.1 - 119	1.39	20	
Chlorodibromomethane	1	0.025	0.0272	109	0.0268	107	74 - 121	1.47	20	
Chloroethane	1	0.025	0.0133	53.1	0.0132	52.8	61.7 - 135	J4 0.42	20	
Chloroform	1	0.025	0.0245	98.1	0.0233	93.1	76 - 121	5.28	20	
Chloromethane	1	0.025	0.0227	90.9	0.0220	87.9	61.5 - 129	3.37	20	
cis-1,2-Dichloroethene	1	0.025	0.0246	98.4	0.0236	94.5	76 - 119	4.06	20	
cis-1,3-Dichloropropene	1	0.025	0.0261	105	0.0255	102	78.2 - 120	2.46	20	
Ethylbenzene	1	0.025	0.0251	100	0.0249	99.7	78.8 - 122	0.66	20	
Isopropylbenzene	1	0.025	0.0266	107	0.0267	107	78.6 - 132	0.36	20	
m&p-Xylenes	1	0.05	0.0501	100	0.0503	101	78.8 - 121	0.32	20	
Methyl tert-butyl ether	1	0.025	0.0253	101	0.0247	98.6	71.2 - 126	2.45	20	
Methylene Chloride	1	0.025	0.0237	94.8	0.0233	93.1	70.3 - 120	1.78	20	
Naphthalene	1	0.025	0.0332	133	0.0315	126	68.4 - 128	J4 5.16	20	
n-Butylbenzene	1	0.025	0.0276	110	0.0275	110	76.2 - 126	0.46	20	
n-Propylbenzene	1	0.025	0.0265	106	0.0266	107	78.2 - 122	0.61	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754917**
 Analysis Date: 11/19/2014 3:06:00 PM Analyst: 644
 Instrument ID: VOCMS30
 Sample Numbers: L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD	Control RPD Limits	Qual
o-Xylene	1	0.025	0.0275	110	0.0276	110	77.6 - 122		0.48	20	
p-Isopropyltoluene	1	0.025	0.0247	98.9	0.0246	98.5	74 - 131		0.49	20	
sec-Butylbenzene	1	0.025	0.0259	104	0.0260	104	74.4 - 127		0.15	20	
Styrene	1	0.025	0.0266	106	0.0268	107	80.4 - 126		0.7	20	
Tetrachloroethene	1	0.025	0.0238	95.3	0.0237	94.7	72.6 - 126		0.69	20	
Toluene	1	0.025	0.0232	92.9	0.0225	90.1	79.7 - 116		3.03	20	
trans-1,2-Dichloroethene	1	0.025	0.0249	99.6	0.0242	96.9	72.6 - 121		2.78	20	
trans-1,3-Dichloropropene	1	0.025	0.0251	101	0.0245	98	74.3 - 123		2.49	20	
Trichloroethene	1	0.025	0.0244	97.8	0.0235	94	77.7 - 118		3.91	20	
Vinyl chloride	1	0.025	0.0209	83.6	0.0201	80.3	65.9 - 128		4	20	
Xylenes, Total	1	0.075	0.0775	103	0.0778	104	78.7 - 121		0.38	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: **WG754918**
Analysis Date: 11/20/2014 5:53:00 AM Analyst: 644
Instrument ID: VOCMS2
Sample Numbers: L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0256	102	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0254	102	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0265	106	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0250	100	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0263	105	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0273	109	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0248	99	75 - 123	
1,2-Dibromoethane	1	0.025	0.0251	100	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0277	111	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0265	106	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0245	97.9	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1420	114	55 - 149	
2-Hexanone	1	0.125	0.1370	110	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1430	114	70.5 - 133	
Acetone	1	0.125	0.1195	95.6	35.6 - 163	
Benzene	1	0.025	0.0249	99.7	74.8 - 121	
Bromodichloromethane	1	0.025	0.0286	114	75.1 - 116	
Bromoform	1	0.025	0.0255	102	67.5 - 130	
Bromomethane	1	0.025	0.0265	106	49.9 - 162	
Carbon disulfide	1	0.025	0.0257	103	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0260	104	70.2 - 123	
Chlorobenzene	1	0.025	0.0252	101	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0245	98	74 - 121	
Chloroethane	1	0.025	0.0250	99.8	61.7 - 135	
Chloroform	1	0.025	0.0279	112	76 - 121	
Chloromethane	1	0.025	0.0234	93.7	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0261	104	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0285	114	78.2 - 120	
Ethylbenzene	1	0.025	0.0241	96.6	78.8 - 122	
Isopropylbenzene	1	0.025	0.0247	98.8	78.6 - 132	
m&p-Xylenes	1	0.05	0.0488	97.6	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0294	118	71.2 - 126	
Methylene Chloride	1	0.025	0.0239	95.5	70.3 - 120	
Naphthalene	1	0.025	0.0294	118	68.4 - 128	
n-Butylbenzene	1	0.025	0.0284	113	76.2 - 126	
n-Propylbenzene	1	0.025	0.0242	97	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754918**
 Analysis Date: 11/20/2014 5:53:00 AM Analyst: 644
 Instrument ID: VOCMS2
 Sample Numbers: L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0239	95.4	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0250	100	74 - 131	
sec-Butylbenzene	1	0.025	0.0245	98.1	74.4 - 127	
Styrene	1	0.025	0.0253	101	80.4 - 126	
Tetrachloroethene	1	0.025	0.0245	98.1	72.6 - 126	
Toluene	1	0.025	0.0247	98.9	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0267	107	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0296	119	74.3 - 123	
Trichloroethene	1	0.025	0.0248	99.2	77.7 - 118	
Vinyl chloride	1	0.025	0.0266	106	65.9 - 128	
Xylenes, Total	1	0.075	0.0727	96.9	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754918**
 Analysis Date: 11/20/2014 5:53:00 AM Analyst: 644
 Instrument ID: VOCMS2
 Sample Numbers: L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0258	103	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0266	106	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0259	104	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0247	98.9	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0260	104	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0262	105	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0254	101	75 - 123	
1,2-Dibromoethane	1	0.025	0.0246	98.5	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0267	107	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0257	103	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0252	101	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1209	96.7	55 - 149	
2-Hexanone	1	0.125	0.1225	98	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1278	102	70.5 - 133	
Acetone	1	0.125	0.0929	74.3	35.6 - 163	
Benzene	1	0.025	0.0247	98.9	74.8 - 121	
Bromodichloromethane	1	0.025	0.0279	112	75.1 - 116	
Bromoform	1	0.025	0.0248	99.2	67.5 - 130	
Bromomethane	1	0.025	0.0252	101	49.9 - 162	
Carbon disulfide	1	0.025	0.0263	105	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0262	105	70.2 - 123	
Chlorobenzene	1	0.025	0.0252	101	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0245	98.2	74 - 121	
Chloroethane	1	0.025	0.0234	93.6	61.7 - 135	
Chloroform	1	0.025	0.0272	109	76 - 121	
Chloromethane	1	0.025	0.0226	90.3	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0257	103	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0275	110	78.2 - 120	
Ethylbenzene	1	0.025	0.0246	98.2	78.8 - 122	
Isopropylbenzene	1	0.025	0.0251	101	78.6 - 132	
m&p-Xylenes	1	0.05	0.0488	97.5	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0284	114	71.2 - 126	
Methylene Chloride	1	0.025	0.0238	95.3	70.3 - 120	
Naphthalene	1	0.025	0.0259	103	68.4 - 128	
n-Butylbenzene	1	0.025	0.0280	112	76.2 - 126	
n-Propylbenzene	1	0.025	0.0247	98.6	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754918**
 Analysis Date: 11/20/2014 5:53:00 AM Analyst: 644
 Instrument ID: VOCMS2
 Sample Numbers: L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0242	96.7	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0257	103	74 - 131	
sec-Butylbenzene	1	0.025	0.0251	100	74.4 - 127	
Styrene	1	0.025	0.0254	102	80.4 - 126	
Tetrachloroethene	1	0.025	0.0239	95.8	72.6 - 126	
Toluene	1	0.025	0.0239	95.8	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0259	104	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0279	112	74.3 - 123	
Trichloroethene	1	0.025	0.0250	100	77.7 - 118	
Vinyl chloride	1	0.025	0.0263	105	65.9 - 128	
Xylenes, Total	1	0.075	0.0729	97.2	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754918
 Analysis Date: 11/20/2014 5:53:00 AM Analyst: 644
 Instrument ID: VOCMS2
 Sample Numbers: L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0256	102	0.0258	103	74.2 - 124	0.91	20	
1,1,1-Trichloroethane	1	0.025	0.0254	102	0.0266	106	73.2 - 123	4.56	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0265	106	0.0259	104	70.7 - 122	2.4	20	
1,1,2-Trichloroethane	1	0.025	0.0250	100	0.0247	98.9	77.7 - 118	1.25	20	
1,1-Dichloroethane	1	0.025	0.0263	105	0.0260	104	70.7 - 126	1.1	20	
1,1-Dichloroethene	1	0.025	0.0273	109	0.0262	105	67.8 - 129	4.1	20	
1,2,4-Trimethylbenzene	1	0.025	0.0248	99	0.0254	101	75 - 123	2.38	20	
1,2-Dibromoethane	1	0.025	0.0251	100	0.0246	98.5	76.6 - 121	1.76	20	
1,2-Dichloroethane	1	0.025	0.0277	111	0.0267	107	68.8 - 124	3.54	20	
1,2-Dichloropropane	1	0.025	0.0265	106	0.0257	103	76.5 - 119	3.2	20	
1,3,5-Trimethylbenzene	1	0.025	0.0245	97.9	0.0252	101	75.6 - 124	2.76	20	
2-Butanone (MEK)	1	0.125	0.1420	114	0.1209	96.7	55 - 149	16	20	
2-Hexanone	1	0.125	0.1370	110	0.1225	98	65.6 - 144	11.2	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1430	114	0.1278	102	70.5 - 133	11.2	20	
Acetone	1	0.125	0.1195	95.6	0.0929	74.3	35.6 - 163	25.1	23.9	J3
Benzene	1	0.025	0.0249	99.7	0.0247	98.9	74.8 - 121	0.85	20	
Bromodichloromethane	1	0.025	0.0286	114	0.0279	112	75.1 - 116	2.37	20	
Bromoform	1	0.025	0.0255	102	0.0248	99.2	67.5 - 130	3.01	20	
Bromomethane	1	0.025	0.0265	106	0.0252	101	49.9 - 162	5.15	20	
Carbon disulfide	1	0.025	0.0257	103	0.0263	105	64.6 - 140	2.41	20	
Carbon tetrachloride	1	0.025	0.0260	104	0.0262	105	70.2 - 123	0.74	20	
Chlorobenzene	1	0.025	0.0252	101	0.0252	101	78.1 - 119	0.15	20	
Chlorodibromomethane	1	0.025	0.0245	98	0.0245	98.2	74 - 121	0.17	20	
Chloroethane	1	0.025	0.0250	99.8	0.0234	93.6	61.7 - 135	6.44	20	
Chloroform	1	0.025	0.0279	112	0.0272	109	76 - 121	2.34	20	
Chloromethane	1	0.025	0.0234	93.7	0.0226	90.3	61.5 - 129	3.78	20	
cis-1,2-Dichloroethene	1	0.025	0.0261	104	0.0257	103	76 - 119	1.27	20	
cis-1,3-Dichloropropene	1	0.025	0.0285	114	0.0275	110	78.2 - 120	3.79	20	
Ethylbenzene	1	0.025	0.0241	96.6	0.0246	98.2	78.8 - 122	1.69	20	
Isopropylbenzene	1	0.025	0.0247	98.8	0.0251	101	78.6 - 132	1.83	20	
m&p-Xylenes	1	0.05	0.0488	97.6	0.0488	97.5	78.8 - 121	0.1	20	
Methyl tert-butyl ether	1	0.025	0.0294	118	0.0284	114	71.2 - 126	3.45	20	
Methylene Chloride	1	0.025	0.0239	95.5	0.0238	95.3	70.3 - 120	0.19	20	
Naphthalene	1	0.025	0.0294	118	0.0259	103	68.4 - 128	12.9	20	
n-Butylbenzene	1	0.025	0.0284	113	0.0280	112	76.2 - 126	1.38	20	
n-Propylbenzene	1	0.025	0.0242	97	0.0247	98.6	78.2 - 122	1.69	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754918**
 Analysis Date: 11/20/2014 5:53:00 AM Analyst: 644
 Instrument ID: VOCMS2
 Sample Numbers: L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD	Qual
o-Xylene	1	0.025	0.0239	95.4	0.0242	96.7	77.6 - 122	1.26	20	
p-Isopropyltoluene	1	0.025	0.0250	100	0.0257	103	74 - 131	2.79	20	
sec-Butylbenzene	1	0.025	0.0245	98.1	0.0251	100	74.4 - 127	2.34	20	
Styrene	1	0.025	0.0253	101	0.0254	102	80.4 - 126	0.61	20	
Tetrachloroethene	1	0.025	0.0245	98.1	0.0239	95.8	72.6 - 126	2.37	20	
Toluene	1	0.025	0.0247	98.9	0.0239	95.8	79.7 - 116	3.21	20	
trans-1,2-Dichloroethene	1	0.025	0.0267	107	0.0259	104	72.6 - 121	2.84	20	
trans-1,3-Dichloropropene	1	0.025	0.0296	119	0.0279	112	74.3 - 123	5.99	20	
Trichloroethene	1	0.025	0.0248	99.2	0.0250	100	77.7 - 118	0.87	20	
Vinyl chloride	1	0.025	0.0266	106	0.0263	105	65.9 - 128	1.29	20	
Xylenes, Total	1	0.075	0.0727	96.9	0.0729	97.2	78.7 - 121	0.35	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754919**
 Analysis Date: 11/21/2014 10:42:00 PM Analyst: 644
 Instrument ID: VOCMS13
 Sample Numbers: L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0271	109	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0263	105	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0272	109	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0271	108	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0264	106	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0263	105	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0264	106	75 - 123	
1,2-Dibromoethane	1	0.025	0.0292	117	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0285	114	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0272	109	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0264	105	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1939	155	55 - 149	J4
2-Hexanone	1	0.125	0.1522	122	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1550	124	70.5 - 133	
Acetone	1	0.125	0.1623	130	35.6 - 163	
Benzene	1	0.025	0.0269	108	74.8 - 121	
Bromodichloromethane	1	0.025	0.0274	110	75.1 - 116	
Bromoform	1	0.025	0.0314	126	67.5 - 130	
Bromomethane	1	0.025	0.0278	111	49.9 - 162	
Carbon disulfide	1	0.025	0.0246	98.2	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0263	105	70.2 - 123	
Chlorobenzene	1	0.025	0.0273	109	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0290	116	74 - 121	
Chloroethane	1	0.025	0.0279	112	61.7 - 135	
Chloroform	1	0.025	0.0266	106	76 - 121	
Chloromethane	1	0.025	0.0250	99.8	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0265	106	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0289	115	78.2 - 120	
Ethylbenzene	1	0.025	0.0263	105	78.8 - 122	
Isopropylbenzene	1	0.025	0.0257	103	78.6 - 132	
m&p-Xylenes	1	0.05	0.0531	106	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0276	110	71.2 - 126	
Methylene Chloride	1	0.025	0.0266	107	70.3 - 120	
Naphthalene	1	0.025	0.0301	120	68.4 - 128	
n-Butylbenzene	1	0.025	0.0257	103	76.2 - 126	
n-Propylbenzene	1	0.025	0.0263	105	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754919**
 Analysis Date: 11/21/2014 10:42:00 PM Analyst: 644
 Instrument ID: VOCMS13
 Sample Numbers: L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0257	103	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0270	108	74 - 131	
sec-Butylbenzene	1	0.025	0.0264	105	74.4 - 127	
Styrene	1	0.025	0.0295	118	80.4 - 126	
Tetrachloroethene	1	0.025	0.0263	105	72.6 - 126	
Toluene	1	0.025	0.0269	108	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0274	110	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0287	115	74.3 - 123	
Trichloroethene	1	0.025	0.0281	112	77.7 - 118	
Vinyl chloride	1	0.025	0.0262	105	65.9 - 128	
Xylenes, Total	1	0.075	0.0788	105	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754919**
 Analysis Date: 11/21/2014 10:42:00 PM Analyst: 644
 Instrument ID: VOCMS13
 Sample Numbers: L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0251	100	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0252	101	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0242	96.7	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0236	94.3	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0248	99.1	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0248	99.2	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0249	99.6	75 - 123	
1,2-Dibromoethane	1	0.025	0.0259	103	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0251	101	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0252	101	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0255	102	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1263	101	55 - 149	
2-Hexanone	1	0.125	0.1269	102	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1301	104	70.5 - 133	
Acetone	1	0.125	0.1311	105	35.6 - 163	
Benzene	1	0.025	0.0252	101	74.8 - 121	
Bromodichloromethane	1	0.025	0.0248	99.2	75.1 - 116	
Bromoform	1	0.025	0.0278	111	67.5 - 130	
Bromomethane	1	0.025	0.0259	104	49.9 - 162	
Carbon disulfide	1	0.025	0.0237	94.7	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0255	102	70.2 - 123	
Chlorobenzene	1	0.025	0.0259	104	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0259	104	74 - 121	
Chloroethane	1	0.025	0.0262	105	61.7 - 135	
Chloroform	1	0.025	0.0245	97.9	76 - 121	
Chloromethane	1	0.025	0.0236	94.3	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0240	96	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0261	105	78.2 - 120	
Ethylbenzene	1	0.025	0.0253	101	78.8 - 122	
Isopropylbenzene	1	0.025	0.0248	99.1	78.6 - 132	
m&p-Xylenes	1	0.05	0.0506	101	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0238	95.2	71.2 - 126	
Methylene Chloride	1	0.025	0.0242	96.9	70.3 - 120	
Naphthalene	1	0.025	0.0266	107	68.4 - 128	
n-Butylbenzene	1	0.025	0.0254	102	76.2 - 126	
n-Propylbenzene	1	0.025	0.0256	102	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754919
Analysis Date:	11/21/2014 10:42:00 PM	Analyst:	644
Instrument ID:	VOCMS13		
Sample Numbers:	L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0244	97.5	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0259	104	74 - 131	
sec-Butylbenzene	1	0.025	0.0255	102	74.4 - 127	
Styrene	1	0.025	0.0272	109	80.4 - 126	
Tetrachloroethene	1	0.025	0.0251	100	72.6 - 126	
Toluene	1	0.025	0.0253	101	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0255	102	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0263	105	74.3 - 123	
Trichloroethene	1	0.025	0.0270	108	77.7 - 118	
Vinyl chloride	1	0.025	0.0246	98.6	65.9 - 128	
Xylenes, Total	1	0.075	0.0750	100	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B

Project No: TX000836.0008.00004 Matrix: Water - mg/L

Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003

Collection Date: 11/11/2014 Analytic Batch: WG754919

Analysis Date: 11/21/2014 10:42:00 PM Analyst: 644

Instrument ID: VOCMS13

Sample Numbers: L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0271	109	0.0251	100	74.2 - 124	7.78	20	
1,1,1-Trichloroethane	1	0.025	0.0263	105	0.0252	101	73.2 - 123	4.48	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0272	109	0.0242	96.7	70.7 - 122	11.9	20	
1,1,2-Trichloroethane	1	0.025	0.0271	108	0.0236	94.3	77.7 - 118	13.8	20	
1,1-Dichloroethane	1	0.025	0.0264	106	0.0248	99.1	70.7 - 126	6.44	20	
1,1-Dichloroethene	1	0.025	0.0263	105	0.0248	99.2	67.8 - 129	5.77	20	
1,2,4-Trimethylbenzene	1	0.025	0.0264	106	0.0249	99.6	75 - 123	5.88	20	
1,2-Dibromoethane	1	0.025	0.0292	117	0.0259	103	76.6 - 121	12.1	20	
1,2-Dichloroethane	1	0.025	0.0285	114	0.0251	101	68.8 - 124	12.7	20	
1,2-Dichloropropane	1	0.025	0.0272	109	0.0252	101	76.5 - 119	7.92	20	
1,3,5-Trimethylbenzene	1	0.025	0.0264	105	0.0255	102	75.6 - 124	3.26	20	
2-Butanone (MEK)	1	0.125	0.1939	155	0.1263	101	55 - 149	J4 42.2	20	J3
2-Hexanone	1	0.125	0.1522	122	0.1269	102	65.6 - 144	18.1	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1550	124	0.1301	104	70.5 - 133	17.4	20	
Acetone	1	0.125	0.1623	130	0.1311	105	35.6 - 163	21.3	23.9	
Benzene	1	0.025	0.0269	108	0.0252	101	74.8 - 121	6.88	20	
Bromodichloromethane	1	0.025	0.0274	110	0.0248	99.2	75.1 - 116	10.1	20	
Bromoform	1	0.025	0.0314	126	0.0278	111	67.5 - 130	12	20	
Bromomethane	1	0.025	0.0278	111	0.0259	104	49.9 - 162	7	20	
Carbon disulfide	1	0.025	0.0246	98.2	0.0237	94.7	64.6 - 140	3.67	20	
Carbon tetrachloride	1	0.025	0.0263	105	0.0255	102	70.2 - 123	3.08	20	
Chlorobenzene	1	0.025	0.0273	109	0.0259	104	78.1 - 119	5.13	20	
Chlorodibromomethane	1	0.025	0.0290	116	0.0259	104	74 - 121	11.3	20	
Chloroethane	1	0.025	0.0279	112	0.0262	105	61.7 - 135	6.18	20	
Chloroform	1	0.025	0.0266	106	0.0245	97.9	76 - 121	8.18	20	
Chloromethane	1	0.025	0.0250	99.8	0.0236	94.3	61.5 - 129	5.63	20	
cis-1,2-Dichloroethene	1	0.025	0.0265	106	0.0240	96	76 - 119	10	20	
cis-1,3-Dichloropropene	1	0.025	0.0289	115	0.0261	105	78.2 - 120	9.89	20	
Ethylbenzene	1	0.025	0.0263	105	0.0253	101	78.8 - 122	3.9	20	
Isopropylbenzene	1	0.025	0.0257	103	0.0248	99.1	78.6 - 132	3.72	20	
m&p-Xylenes	1	0.05	0.0531	106	0.0506	101	78.8 - 121	4.7	20	
Methyl tert-butyl ether	1	0.025	0.0276	110	0.0238	95.2	71.2 - 126	14.6	20	
Methylene Chloride	1	0.025	0.0266	107	0.0242	96.9	70.3 - 120	9.45	20	
Naphthalene	1	0.025	0.0301	120	0.0266	107	68.4 - 128	12	20	
n-Butylbenzene	1	0.025	0.0257	103	0.0254	102	76.2 - 126	1	20	
n-Propylbenzene	1	0.025	0.0263	105	0.0256	102	78.2 - 122	3.01	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754919**
 Analysis Date: 11/21/2014 10:42:00 PM Analyst: 644
 Instrument ID: VOCMS13
 Sample Numbers: L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
o-Xylene	1	0.025	0.0257	103	0.0244	97.5	77.6 - 122		5.34	20
p-Isopropyltoluene	1	0.025	0.0270	108	0.0259	104	74 - 131		3.92	20
sec-Butylbenzene	1	0.025	0.0264	105	0.0255	102	74.4 - 127		3.5	20
Styrene	1	0.025	0.0295	118	0.0272	109	80.4 - 126		7.96	20
Tetrachloroethene	1	0.025	0.0263	105	0.0251	100	72.6 - 126		4.44	20
Toluene	1	0.025	0.0269	108	0.0253	101	79.7 - 116		6.22	20
trans-1,2-Dichloroethene	1	0.025	0.0274	110	0.0255	102	72.6 - 121		7.03	20
trans-1,3-Dichloropropene	1	0.025	0.0287	115	0.0263	105	74.3 - 123		8.55	20
Trichloroethene	1	0.025	0.0281	112	0.0270	108	77.7 - 118		4.1	20
Vinyl chloride	1	0.025	0.0262	105	0.0246	98.6	65.9 - 128		6.04	20
Xylenes, Total	1	0.075	0.0788	105	0.0750	100	78.7 - 121		4.91	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG755340
 Analysis Date: 11/22/2014 12:20:00 AM Analyst: 611
 Instrument ID: VOCMS25
 Sample Numbers: L733743-06, -07, -08, -09, -10, -11, -12

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0269	108	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0235	93.9	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0239	95.7	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0245	97.9	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0221	88.6	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0210	83.9	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0241	96.5	75 - 123	
1,2-Dibromoethane	1	0.025	0.0258	103	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0201	80.3	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0236	94.2	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0248	99.2	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.0932	74.6	55 - 149	
2-Hexanone	1	0.125	0.1173	93.8	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1098	87.8	70.5 - 133	
Acetone	1	0.125	0.0785	62.8	35.6 - 163	
Benzene	1	0.025	0.0226	90.4	74.8 - 121	
Bromodichloromethane	1	0.025	0.0226	90.6	75.1 - 116	
Bromoform	1	0.025	0.0268	107	67.5 - 130	
Bromomethane	1	0.025	0.0314	126	49.9 - 162	
Carbon disulfide	1	0.025	0.0217	86.9	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0241	96.4	70.2 - 123	
Chlorobenzene	1	0.025	0.0261	105	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0263	105	74 - 121	
Chloroethane	1	0.025	0.0265	106	61.7 - 135	
Chloroform	1	0.025	0.0223	89.4	76 - 121	
Chloromethane	1	0.025	0.0202	80.8	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0236	94.2	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0236	94.4	78.2 - 120	
Ethylbenzene	1	0.025	0.0259	104	78.8 - 122	
Isopropylbenzene	1	0.025	0.0260	104	78.6 - 132	
m&p-Xylenes	1	0.05	0.0522	104	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0211	84.5	71.2 - 126	
Methylene Chloride	1	0.025	0.0234	93.8	70.3 - 120	
Naphthalene	1	0.025	0.0203	81.2	68.4 - 128	
n-Butylbenzene	1	0.025	0.0220	88.1	76.2 - 126	
n-Propylbenzene	1	0.025	0.0259	103	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0250	100	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0271	108	74 - 131	
sec-Butylbenzene	1	0.025	0.0266	107	74.4 - 127	
Styrene	1	0.025	0.0252	101	80.4 - 126	
Tetrachloroethene	1	0.025	0.0299	120	72.6 - 126	
Toluene	1	0.025	0.0260	104	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0235	94.1	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0240	95.8	74.3 - 123	
Trichloroethene	1	0.025	0.0276	110	77.7 - 118	
Vinyl chloride	1	0.025	0.0182	72.7	65.9 - 128	
Xylenes, Total	1	0.075	0.0772	103	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0279	112	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0244	97.6	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0263	105	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0273	109	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0235	93.9	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0213	85.4	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0258	103	75 - 123	
1,2-Dibromoethane	1	0.025	0.0285	114	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0221	88.5	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0256	102	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0261	104	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1061	84.9	55 - 149	
2-Hexanone	1	0.125	0.1338	107	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1248	99.9	70.5 - 133	
Acetone	1	0.125	0.0923	73.9	35.6 - 163	
Benzene	1	0.025	0.0240	95.8	74.8 - 121	
Bromodichloromethane	1	0.025	0.0248	99	75.1 - 116	
Bromoform	1	0.025	0.0290	116	67.5 - 130	
Bromomethane	1	0.025	0.0300	120	49.9 - 162	
Carbon disulfide	1	0.025	0.0234	93.5	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0249	99.6	70.2 - 123	
Chlorobenzene	1	0.025	0.0284	114	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0288	115	74 - 121	
Chloroethane	1	0.025	0.0268	107	61.7 - 135	
Chloroform	1	0.025	0.0237	94.8	76 - 121	
Chloromethane	1	0.025	0.0210	84.1	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0251	100	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0259	103	78.2 - 120	
Ethylbenzene	1	0.025	0.0273	109	78.8 - 122	
Isopropylbenzene	1	0.025	0.0274	110	78.6 - 132	
m&p-Xylenes	1	0.05	0.0550	110	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0234	93.4	71.2 - 126	
Methylene Chloride	1	0.025	0.0246	98.5	70.3 - 120	
Naphthalene	1	0.025	0.0229	91.6	68.4 - 128	
n-Butylbenzene	1	0.025	0.0233	93.4	76.2 - 126	
n-Propylbenzene	1	0.025	0.0270	108	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0264	106	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0280	112	74 - 131	
sec-Butylbenzene	1	0.025	0.0279	112	74.4 - 127	
Styrene	1	0.025	0.0276	111	80.4 - 126	
Tetrachloroethene	1	0.025	0.0310	124	72.6 - 126	
Toluene	1	0.025	0.0274	110	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0249	99.4	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0273	109	74.3 - 123	
Trichloroethene	1	0.025	0.0286	114	77.7 - 118	
Vinyl chloride	1	0.025	0.0191	76.4	65.9 - 128	
Xylenes, Total	1	0.075	0.0814	109	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B

Project No: TX000836.0008.00004 Matrix: Water - mg/L

Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003

Collection Date: 11/11/2014 Analytic Batch: WG755340

Analysis Date: 11/22/2014 12:20:00 AM Analyst: 611

Instrument ID: VOCMS25

Sample Numbers: L733743-06, -07, -08, -09, -10, -11, -12

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0269	108	0.0279	112	74.2 - 124	3.54	20	
1,1,1-Trichloroethane	1	0.025	0.0235	93.9	0.0244	97.6	73.2 - 123	3.8	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0239	95.7	0.0263	105	70.7 - 122	9.59	20	
1,1,2-Trichloroethane	1	0.025	0.0245	97.9	0.0273	109	77.7 - 118	10.8	20	
1,1-Dichloroethane	1	0.025	0.0221	88.6	0.0235	93.9	70.7 - 126	5.83	20	
1,1-Dichloroethene	1	0.025	0.0210	83.9	0.0213	85.4	67.8 - 129	1.71	20	
1,2,4-Trimethylbenzene	1	0.025	0.0241	96.5	0.0258	103	75 - 123	6.69	20	
1,2-Dibromoethane	1	0.025	0.0258	103	0.0285	114	76.6 - 121	10.1	20	
1,2-Dichloroethane	1	0.025	0.0201	80.3	0.0221	88.5	68.8 - 124	9.73	20	
1,2-Dichloropropane	1	0.025	0.0236	94.2	0.0256	102	76.5 - 119	8.25	20	
1,3,5-Trimethylbenzene	1	0.025	0.0248	99.2	0.0261	104	75.6 - 124	5.17	20	
2-Butanone (MEK)	1	0.125	0.0932	74.6	0.1061	84.9	55 - 149	13	20	
2-Hexanone	1	0.125	0.1173	93.8	0.1338	107	65.6 - 144	13.2	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1098	87.8	0.1248	99.9	70.5 - 133	12.8	20	
Acetone	1	0.125	0.0785	62.8	0.0923	73.9	35.6 - 163	16.2	23.9	
Benzene	1	0.025	0.0226	90.4	0.0240	95.8	74.8 - 121	5.76	20	
Bromodichloromethane	1	0.025	0.0226	90.6	0.0248	99	75.1 - 116	8.92	20	
Bromoform	1	0.025	0.0268	107	0.0290	116	67.5 - 130	8.18	20	
Bromomethane	1	0.025	0.0314	126	0.0300	120	49.9 - 162	4.75	20	
Carbon disulfide	1	0.025	0.0217	86.9	0.0234	93.5	64.6 - 140	7.25	20	
Carbon tetrachloride	1	0.025	0.0241	96.4	0.0249	99.6	70.2 - 123	3.3	20	
Chlorobenzene	1	0.025	0.0261	105	0.0284	114	78.1 - 119	8.44	20	
Chlorodibromomethane	1	0.025	0.0263	105	0.0288	115	74 - 121	9.08	20	
Chloroethane	1	0.025	0.0265	106	0.0268	107	61.7 - 135	1.24	20	
Chloroform	1	0.025	0.0223	89.4	0.0237	94.8	76 - 121	5.9	20	
Chloromethane	1	0.025	0.0202	80.8	0.0210	84.1	61.5 - 129	3.91	20	
cis-1,2-Dichloroethene	1	0.025	0.0236	94.2	0.0251	100	76 - 119	6.41	20	
cis-1,3-Dichloropropene	1	0.025	0.0236	94.4	0.0259	103	78.2 - 120	9.17	20	
Ethylbenzene	1	0.025	0.0259	104	0.0273	109	78.8 - 122	5.15	20	
Isopropylbenzene	1	0.025	0.0260	104	0.0274	110	78.6 - 132	5.28	20	
m&p-Xylenes	1	0.05	0.0522	104	0.0550	110	78.8 - 121	5.32	20	
Methyl tert-butyl ether	1	0.025	0.0211	84.5	0.0234	93.4	71.2 - 126	10	20	
Methylene Chloride	1	0.025	0.0234	93.8	0.0246	98.5	70.3 - 120	4.92	20	
Naphthalene	1	0.025	0.0203	81.2	0.0229	91.6	68.4 - 128	12	20	
n-Butylbenzene	1	0.025	0.0220	88.1	0.0233	93.4	76.2 - 126	5.82	20	
n-Propylbenzene	1	0.025	0.0259	103	0.0270	108	78.2 - 122	4.4	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
o-Xylene	1	0.025	0.0250	100	0.0264	106	77.6 - 122		5.29	20
p-Isopropyltoluene	1	0.025	0.0271	108	0.0280	112	74 - 131		3.17	20
sec-Butylbenzene	1	0.025	0.0266	107	0.0279	112	74.4 - 127		4.77	20
Styrene	1	0.025	0.0252	101	0.0276	111	80.4 - 126		9.36	20
Tetrachloroethene	1	0.025	0.0299	120	0.0310	124	72.6 - 126		3.54	20
Toluene	1	0.025	0.0260	104	0.0274	110	79.7 - 116		5.43	20
trans-1,2-Dichloroethene	1	0.025	0.0235	94.1	0.0249	99.4	72.6 - 121		5.49	20
trans-1,3-Dichloropropene	1	0.025	0.0240	95.8	0.0273	109	74.3 - 123		13.1	20
Trichloroethene	1	0.025	0.0276	110	0.0286	114	77.7 - 118		3.54	20
Vinyl chloride	1	0.025	0.0182	72.7	0.0191	76.4	65.9 - 128		4.95	20
Xylenes, Total	1	0.075	0.0772	103	0.0814	109	78.7 - 121		5.31	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0272	109	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0243	97	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0253	101	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0252	101	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0230	92	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0218	87.3	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0256	103	75 - 123	
1,2-Dibromoethane	1	0.025	0.0265	106	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0207	82.8	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0242	96.9	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0253	101	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.0991	79.3	55 - 149	
2-Hexanone	1	0.125	0.1238	99	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1175	94	70.5 - 133	
Acetone	1	0.125	0.0881	70.5	35.6 - 163	
Benzene	1	0.025	0.0231	92.3	74.8 - 121	
Bromodichloromethane	1	0.025	0.0230	92.2	75.1 - 116	
Bromoform	1	0.025	0.0276	110	67.5 - 130	
Bromomethane	1	0.025	0.0359	144	49.9 - 162	
Carbon disulfide	1	0.025	0.0257	103	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0249	99.8	70.2 - 123	
Chlorobenzene	1	0.025	0.0267	107	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0268	107	74 - 121	
Chloroethane	1	0.025	0.0291	116	61.7 - 135	
Chloroform	1	0.025	0.0231	92.3	76 - 121	
Chloromethane	1	0.025	0.0213	85.1	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0243	97.4	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0239	95.6	78.2 - 120	
Ethylbenzene	1	0.025	0.0263	105	78.8 - 122	
Isopropylbenzene	1	0.025	0.0269	107	78.6 - 132	
m&p-Xylenes	1	0.05	0.0532	106	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0230	92	71.2 - 126	
Methylene Chloride	1	0.025	0.0252	101	70.3 - 120	
Naphthalene	1	0.025	0.0226	90.6	68.4 - 128	
n-Butylbenzene	1	0.025	0.0234	93.7	76.2 - 126	
n-Propylbenzene	1	0.025	0.0261	104	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0260	104	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0283	113	74 - 131	
sec-Butylbenzene	1	0.025	0.0276	111	74.4 - 127	
Styrene	1	0.025	0.0257	103	80.4 - 126	
Tetrachloroethene	1	0.025	0.0308	123	72.6 - 126	
Toluene	1	0.025	0.0265	106	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0248	99.1	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0247	98.9	74.3 - 123	
Trichloroethene	1	0.025	0.0278	111	77.7 - 118	
Vinyl chloride	1	0.025	0.0194	77.5	65.9 - 128	
Xylenes, Total	1	0.075	0.0792	106	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0249	99.6	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0211	84.6	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0231	92.2	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0237	94.7	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0202	80.8	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0192	76.9	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0232	92.9	75 - 123	
1,2-Dibromoethane	1	0.025	0.0247	98.7	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0195	77.9	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0223	89.2	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0239	95.4	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.0909	72.7	55 - 149	
2-Hexanone	1	0.125	0.1134	90.8	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1080	86.4	70.5 - 133	
Acetone	1	0.125	0.0802	64.1	35.6 - 163	
Benzene	1	0.025	0.0209	83.7	74.8 - 121	
Bromodichloromethane	1	0.025	0.0216	86.6	75.1 - 116	
Bromoform	1	0.025	0.0256	102	67.5 - 130	
Bromomethane	1	0.025	0.0267	107	49.9 - 162	
Carbon disulfide	1	0.025	0.0218	87.3	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0215	85.8	70.2 - 123	
Chlorobenzene	1	0.025	0.0249	99.7	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0250	100	74 - 121	
Chloroethane	1	0.025	0.0245	97.9	61.7 - 135	
Chloroform	1	0.025	0.0205	82.1	76 - 121	
Chloromethane	1	0.025	0.0189	75.7	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0220	88	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0229	91.5	78.2 - 120	
Ethylbenzene	1	0.025	0.0242	96.9	78.8 - 122	
Isopropylbenzene	1	0.025	0.0240	96.1	78.6 - 132	
m&p-Xylenes	1	0.05	0.0486	97.1	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0202	80.6	71.2 - 126	
Methylene Chloride	1	0.025	0.0220	87.9	70.3 - 120	
Naphthalene	1	0.025	0.0202	80.7	68.4 - 128	
n-Butylbenzene	1	0.025	0.0216	86.3	76.2 - 126	
n-Propylbenzene	1	0.025	0.0243	97.3	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0237	94.9	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0265	106	74 - 131	
sec-Butylbenzene	1	0.025	0.0247	98.8	74.4 - 127	
Styrene	1	0.025	0.0241	96.5	80.4 - 126	
Tetrachloroethene	1	0.025	0.0280	112	72.6 - 126	
Toluene	1	0.025	0.0249	99.4	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0212	84.7	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0242	96.7	74.3 - 123	
Trichloroethene	1	0.025	0.0250	99.8	77.7 - 118	
Vinyl chloride	1	0.025	0.0173	69.4	65.9 - 128	
Xylenes, Total	1	0.075	0.0723	96.4	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG755673
Analysis Date: 11/21/2014 8:51:00 AM Analyst: 611
Instrument ID: VOCMS25
Sample Numbers: L733743-106, -107, -110, -115

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0272	109	0.0249	99.6	74.2 - 124	8.84	20	
1,1,1-Trichloroethane	1	0.025	0.0243	97	0.0211	84.6	73.2 - 123	13.7	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0253	101	0.0231	92.2	70.7 - 122	9.3	20	
1,1,2-Trichloroethane	1	0.025	0.0252	101	0.0237	94.7	77.7 - 118	6.12	20	
1,1-Dichloroethane	1	0.025	0.0230	92	0.0202	80.8	70.7 - 126	12.9	20	
1,1-Dichloroethene	1	0.025	0.0218	87.3	0.0192	76.9	67.8 - 129	12.7	20	
1,2,4-Trimethylbenzene	1	0.025	0.0256	103	0.0232	92.9	75 - 123	9.91	20	
1,2-Dibromoethane	1	0.025	0.0265	106	0.0247	98.7	76.6 - 121	7.09	20	
1,2-Dichloroethane	1	0.025	0.0207	82.8	0.0195	77.9	68.8 - 124	6.14	20	
1,2-Dichloropropane	1	0.025	0.0242	96.9	0.0223	89.2	76.5 - 119	8.19	20	
1,3,5-Trimethylbenzene	1	0.025	0.0253	101	0.0239	95.4	75.6 - 124	5.91	20	
2-Butanone (MEK)	1	0.125	0.0991	79.3	0.0909	72.7	55 - 149	8.7	20	
2-Hexanone	1	0.125	0.1238	99	0.1134	90.8	65.6 - 144	8.69	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1175	94	0.1080	86.4	70.5 - 133	8.51	20	
Acetone	1	0.125	0.0881	70.5	0.0802	64.1	35.6 - 163	9.48	23.9	
Benzene	1	0.025	0.0231	92.3	0.0209	83.7	74.8 - 121	9.71	20	
Bromodichloromethane	1	0.025	0.0230	92.2	0.0216	86.6	75.1 - 116	6.27	20	
Bromoform	1	0.025	0.0276	110	0.0256	102	67.5 - 130	7.51	20	
Bromomethane	1	0.025	0.0359	144	0.0267	107	49.9 - 162	29.7	20	J3
Carbon disulfide	1	0.025	0.0257	103	0.0218	87.3	64.6 - 140	16.4	20	
Carbon tetrachloride	1	0.025	0.0249	99.8	0.0215	85.8	70.2 - 123	15	20	
Chlorobenzene	1	0.025	0.0267	107	0.0249	99.7	78.1 - 119	6.87	20	
Chlorodibromomethane	1	0.025	0.0268	107	0.0250	100	74 - 121	6.7	20	
Chloroethane	1	0.025	0.0291	116	0.0245	97.9	61.7 - 135	17.2	20	
Chloroform	1	0.025	0.0231	92.3	0.0205	82.1	76 - 121	11.7	20	
Chloromethane	1	0.025	0.0213	85.1	0.0189	75.7	61.5 - 129	11.6	20	
cis-1,2-Dichloroethene	1	0.025	0.0243	97.4	0.0220	88	76 - 119	10	20	
cis-1,3-Dichloropropene	1	0.025	0.0239	95.6	0.0229	91.5	78.2 - 120	4.35	20	
Ethylbenzene	1	0.025	0.0263	105	0.0242	96.9	78.8 - 122	8.34	20	
Isopropylbenzene	1	0.025	0.0269	107	0.0240	96.1	78.6 - 132	11.1	20	
m&p-Xylenes	1	0.05	0.0532	106	0.0486	97.1	78.8 - 121	9.05	20	
Methyl tert-butyl ether	1	0.025	0.0230	92	0.0202	80.6	71.2 - 126	13.2	20	
Methylene Chloride	1	0.025	0.0252	101	0.0220	87.9	70.3 - 120	13.6	20	
Naphthalene	1	0.025	0.0226	90.6	0.0202	80.7	68.4 - 128	11.5	20	
n-Butylbenzene	1	0.025	0.0234	93.7	0.0216	86.3	76.2 - 126	8.23	20	
n-Propylbenzene	1	0.025	0.0261	104	0.0243	97.3	78.2 - 122	7	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
o-Xylene	1	0.025	0.0260	104	0.0237	94.9	77.6 - 122		9.32	20
p-Isopropyltoluene	1	0.025	0.0283	113	0.0265	106	74 - 131		6.67	20
sec-Butylbenzene	1	0.025	0.0276	111	0.0247	98.8	74.4 - 127		11.2	20
Styrene	1	0.025	0.0257	103	0.0241	96.5	80.4 - 126		6.41	20
Tetrachloroethene	1	0.025	0.0308	123	0.0280	112	72.6 - 126		9.66	20
Toluene	1	0.025	0.0265	106	0.0249	99.4	79.7 - 116		6.3	20
trans-1,2-Dichloroethene	1	0.025	0.0248	99.1	0.0212	84.7	72.6 - 121		15.7	20
trans-1,3-Dichloropropene	1	0.025	0.0247	98.9	0.0242	96.7	74.3 - 123		2.26	20
Trichloroethene	1	0.025	0.0278	111	0.0250	99.8	77.7 - 118		10.7	20
Vinyl chloride	1	0.025	0.0194	77.5	0.0173	69.4	65.9 - 128		11	20
Xylenes, Total	1	0.075	0.0792	106	0.0723	96.4	78.7 - 121		9.14	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG755736
 Analysis Date: 11/20/2014 4:24:00 PM Analyst: 644
 Instrument ID: VOCMS6
 Sample Numbers: L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0267	107	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0273	109	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0269	108	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0280	112	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0284	114	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0247	98.7	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0260	104	75 - 123	
1,2-Dibromoethane	1	0.025	0.0253	101	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0264	106	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0281	112	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0270	108	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1529	122	55 - 149	
2-Hexanone	1	0.125	0.1373	110	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1320	106	70.5 - 133	
Acetone	1	0.125	0.1274	102	35.6 - 163	
Benzene	1	0.025	0.0282	113	74.8 - 121	
Bromodichloromethane	1	0.025	0.0252	101	75.1 - 116	
Bromoform	1	0.025	0.0246	98.3	67.5 - 130	
Bromomethane	1	0.025	0.0439	176	49.9 - 162	J4
Carbon disulfide	1	0.025	0.0263	105	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0257	103	70.2 - 123	
Chlorobenzene	1	0.025	0.0263	105	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0251	100	74 - 121	
Chloroethane	1	0.025	0.0295	118	61.7 - 135	
Chloroform	1	0.025	0.0280	112	76 - 121	
Chloromethane	1	0.025	0.0264	106	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0268	107	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0268	107	78.2 - 120	
Ethylbenzene	1	0.025	0.0265	106	78.8 - 122	
Isopropylbenzene	1	0.025	0.0266	106	78.6 - 132	
m&p-Xylenes	1	0.05	0.0521	104	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0288	115	71.2 - 126	
Methylene Chloride	1	0.025	0.0285	114	70.3 - 120	
Naphthalene	1	0.025	0.0284	113	68.4 - 128	
n-Butylbenzene	1	0.025	0.0279	112	76.2 - 126	
n-Propylbenzene	1	0.025	0.0270	108	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755736**
 Analysis Date: 11/20/2014 4:24:00 PM Analyst: 644
 Instrument ID: VOCMS6
 Sample Numbers: L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0270	108	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0268	107	74 - 131	
sec-Butylbenzene	1	0.025	0.0274	109	74.4 - 127	
Styrene	1	0.025	0.0271	108	80.4 - 126	
Tetrachloroethene	1	0.025	0.0262	105	72.6 - 126	
Toluene	1	0.025	0.0260	104	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0269	108	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0243	97.3	74.3 - 123	
Trichloroethene	1	0.025	0.0279	111	77.7 - 118	
Vinyl chloride	1	0.025	0.0270	108	65.9 - 128	
Xylenes, Total	1	0.075	0.0791	105	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG755736
 Analysis Date: 11/20/2014 4:24:00 PM Analyst: 644
 Instrument ID: VOCMS6
 Sample Numbers: L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0256	102	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0255	102	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0265	106	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0267	107	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0267	107	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0233	93	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0249	99.4	75 - 123	
1,2-Dibromoethane	1	0.025	0.0251	100	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0247	98.7	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0271	108	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0259	104	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1408	113	55 - 149	
2-Hexanone	1	0.125	0.1344	108	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1254	100	70.5 - 133	
Acetone	1	0.125	0.1173	93.8	35.6 - 163	
Benzene	1	0.025	0.0270	108	74.8 - 121	
Bromodichloromethane	1	0.025	0.0242	96.7	75.1 - 116	
Bromoform	1	0.025	0.0231	92.5	67.5 - 130	
Bromomethane	1	0.025	0.0412	165	49.9 - 162	J4
Carbon disulfide	1	0.025	0.0249	99.4	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0246	98.4	70.2 - 123	
Chlorobenzene	1	0.025	0.0260	104	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0247	98.7	74 - 121	
Chloroethane	1	0.025	0.0283	113	61.7 - 135	
Chloroform	1	0.025	0.0264	106	76 - 121	
Chloromethane	1	0.025	0.0246	98.3	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0246	98.6	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0257	103	78.2 - 120	
Ethylbenzene	1	0.025	0.0260	104	78.8 - 122	
Isopropylbenzene	1	0.025	0.0256	102	78.6 - 132	
m&p-Xylenes	1	0.05	0.0508	102	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0265	106	71.2 - 126	
Methylene Chloride	1	0.025	0.0266	106	70.3 - 120	
Naphthalene	1	0.025	0.0287	115	68.4 - 128	
n-Butylbenzene	1	0.025	0.0275	110	76.2 - 126	
n-Propylbenzene	1	0.025	0.0259	104	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755736**
 Analysis Date: 11/20/2014 4:24:00 PM Analyst: 644
 Instrument ID: VOCMS6
 Sample Numbers: L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0265	106	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0258	103	74 - 131	
sec-Butylbenzene	1	0.025	0.0261	104	74.4 - 127	
Styrene	1	0.025	0.0261	105	80.4 - 126	
Tetrachloroethene	1	0.025	0.0254	102	72.6 - 126	
Toluene	1	0.025	0.0249	99.5	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0256	102	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0230	92	74.3 - 123	
Trichloroethene	1	0.025	0.0258	103	77.7 - 118	
Vinyl chloride	1	0.025	0.0251	101	65.9 - 128	
Xylenes, Total	1	0.075	0.0772	103	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG755736
Analysis Date: 11/20/2014 4:24:00 PM Analyst: 644
Instrument ID: VOCMS6
Sample Numbers: L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0267	107	0.0256	102	74.2 - 124		4.25	20
1,1,1-Trichloroethane	1	0.025	0.0273	109	0.0255	102	73.2 - 123		6.88	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0269	108	0.0265	106	70.7 - 122		1.67	20
1,1,2-Trichloroethane	1	0.025	0.0280	112	0.0267	107	77.7 - 118		4.57	20
1,1-Dichloroethane	1	0.025	0.0284	114	0.0267	107	70.7 - 126		6.06	20
1,1-Dichloroethene	1	0.025	0.0247	98.7	0.0233	93	67.8 - 129		5.95	20
1,2,4-Trimethylbenzene	1	0.025	0.0260	104	0.0249	99.4	75 - 123		4.44	20
1,2-Dibromoethane	1	0.025	0.0253	101	0.0251	100	76.6 - 121		0.86	20
1,2-Dichloroethane	1	0.025	0.0264	106	0.0247	98.7	68.8 - 124		6.84	20
1,2-Dichloropropane	1	0.025	0.0281	112	0.0271	108	76.5 - 119		3.64	20
1,3,5-Trimethylbenzene	1	0.025	0.0270	108	0.0259	104	75.6 - 124		4.2	20
2-Butanone (MEK)	1	0.125	0.1529	122	0.1408	113	55 - 149		8.22	20
2-Hexanone	1	0.125	0.1373	110	0.1344	108	65.6 - 144		2.16	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1320	106	0.1254	100	70.5 - 133		5.16	20
Acetone	1	0.125	0.1274	102	0.1173	93.8	35.6 - 163		8.22	23.9
Benzene	1	0.025	0.0282	113	0.0270	108	74.8 - 121		4.34	20
Bromodichloromethane	1	0.025	0.0252	101	0.0242	96.7	75.1 - 116		4.19	20
Bromoform	1	0.025	0.0246	98.3	0.0231	92.5	67.5 - 130		6.05	20
Bromomethane	1	0.025	0.0439	176	0.0412	165	49.9 - 162	J4	6.27	20
Carbon disulfide	1	0.025	0.0263	105	0.0249	99.4	64.6 - 140		5.73	20
Carbon tetrachloride	1	0.025	0.0257	103	0.0246	98.4	70.2 - 123		4.5	20
Chlorobenzene	1	0.025	0.0263	105	0.0260	104	78.1 - 119		1.08	20
Chlorodibromomethane	1	0.025	0.0251	100	0.0247	98.7	74 - 121		1.79	20
Chloroethane	1	0.025	0.0295	118	0.0283	113	61.7 - 135		4.19	20
Chloroform	1	0.025	0.0280	112	0.0264	106	76 - 121		5.79	20
Chloromethane	1	0.025	0.0264	106	0.0246	98.3	61.5 - 129		7.1	20
cis-1,2-Dichloroethene	1	0.025	0.0268	107	0.0246	98.6	76 - 119		8.27	20
cis-1,3-Dichloropropene	1	0.025	0.0268	107	0.0257	103	78.2 - 120		4.04	20
Ethylbenzene	1	0.025	0.0265	106	0.0260	104	78.8 - 122		1.9	20
Isopropylbenzene	1	0.025	0.0266	106	0.0256	102	78.6 - 132		4	20
m&p-Xylenes	1	0.05	0.0521	104	0.0508	102	78.8 - 121		2.6	20
Methyl tert-butyl ether	1	0.025	0.0288	115	0.0265	106	71.2 - 126		8.59	20
Methylene Chloride	1	0.025	0.0285	114	0.0266	106	70.3 - 120		6.94	20
Naphthalene	1	0.025	0.0284	113	0.0287	115	68.4 - 128		1.09	20
n-Butylbenzene	1	0.025	0.0279	112	0.0275	110	76.2 - 126		1.57	20
n-Propylbenzene	1	0.025	0.0270	108	0.0259	104	78.2 - 122		3.9	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG755736
 Analysis Date: 11/20/2014 4:24:00 PM Analyst: 644
 Instrument ID: VOCMS6
 Sample Numbers: L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
o-Xylene	1	0.025	0.0270	108	0.0265	106	77.6 - 122	1.97	20	
p-Isopropyltoluene	1	0.025	0.0268	107	0.0258	103	74 - 131	4	20	
sec-Butylbenzene	1	0.025	0.0274	109	0.0261	104	74.4 - 127	4.83	20	
Styrene	1	0.025	0.0271	108	0.0261	105	80.4 - 126	3.63	20	
Tetrachloroethene	1	0.025	0.0262	105	0.0254	102	72.6 - 126	3.02	20	
Toluene	1	0.025	0.0260	104	0.0249	99.5	79.7 - 116	4.39	20	
trans-1,2-Dichloroethene	1	0.025	0.0269	108	0.0256	102	72.6 - 121	4.93	20	
trans-1,3-Dichloropropene	1	0.025	0.0243	97.3	0.0230	92	74.3 - 123	5.52	20	
Trichloroethene	1	0.025	0.0279	111	0.0258	103	77.7 - 118	7.64	20	
Vinyl chloride	1	0.025	0.0270	108	0.0251	101	65.9 - 128	7.11	20	
Xylenes, Total	1	0.075	0.0791	105	0.0772	103	78.7 - 121	2.38	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG755901
 Analysis Date: 11/21/2014 1:17:00 PM Analyst: 644
 Instrument ID: VOCMS23
 Sample Numbers: L733743-128, -135, -137, -138, -139, -142, -143, -144

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0289	116	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0288	115	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0265	106	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0270	108	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0269	108	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0275	110	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0279	112	75 - 123	
1,2-Dibromoethane	1	0.025	0.0257	103	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0250	100	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0266	107	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0286	114	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.0971	77.7	55 - 149	
2-Hexanone	1	0.125	0.1120	89.6	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1163	93.1	70.5 - 133	
Acetone	1	0.125	0.1032	82.5	35.6 - 163	
Benzene	1	0.025	0.0266	106	74.8 - 121	
Bromodichloromethane	1	0.025	0.0258	103	75.1 - 116	
Bromoform	1	0.025	0.0270	108	67.5 - 130	
Bromomethane	1	0.025	0.0302	121	49.9 - 162	
Carbon disulfide	1	0.025	0.0277	111	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0269	107	70.2 - 123	
Chlorobenzene	1	0.025	0.0282	113	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0262	105	74 - 121	
Chloroethane	1	0.025	0.0298	119	61.7 - 135	
Chloroform	1	0.025	0.0274	110	76 - 121	
Chloromethane	1	0.025	0.0242	96.8	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0274	110	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0259	104	78.2 - 120	
Ethylbenzene	1	0.025	0.0275	110	78.8 - 122	
Isopropylbenzene	1	0.025	0.0287	115	78.6 - 132	
m&p-Xylenes	1	0.05	0.0558	112	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0278	111	71.2 - 126	
Methylene Chloride	1	0.025	0.0273	109	70.3 - 120	
Naphthalene	1	0.025	0.0249	99.8	68.4 - 128	
n-Butylbenzene	1	0.025	0.0250	100	76.2 - 126	
n-Propylbenzene	1	0.025	0.0279	112	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0274	110	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0286	114	74 - 131	
sec-Butylbenzene	1	0.025	0.0291	116	74.4 - 127	
Styrene	1	0.025	0.0277	111	80.4 - 126	
Tetrachloroethene	1	0.025	0.0300	120	72.6 - 126	
Toluene	1	0.025	0.0261	104	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0289	116	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0242	97	74.3 - 123	
Trichloroethene	1	0.025	0.0291	116	77.7 - 118	
Vinyl chloride	1	0.025	0.0280	112	65.9 - 128	
Xylenes, Total	1	0.075	0.0832	111	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG755901
 Analysis Date: 11/21/2014 1:17:00 PM Analyst: 644
 Instrument ID: VOCMS23
 Sample Numbers: L733743-128, -135, -137, -138, -139, -142, -143, -144

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0248	99.3	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0254	102	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0237	94.6	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0241	96.3	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0225	90	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0229	91.5	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0239	95.5	75 - 123	
1,2-Dibromoethane	1	0.025	0.0233	93.3	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0222	88.7	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0231	92.5	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0246	98.6	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.0885	70.8	55 - 149	
2-Hexanone	1	0.125	0.1023	81.9	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1031	82.5	70.5 - 133	
Acetone	1	0.125	0.0904	72.3	35.6 - 163	
Benzene	1	0.025	0.0229	91.5	74.8 - 121	
Bromodichloromethane	1	0.025	0.0224	89.5	75.1 - 116	
Bromoform	1	0.025	0.0238	95.1	67.5 - 130	
Bromomethane	1	0.025	0.0251	100	49.9 - 162	
Carbon disulfide	1	0.025	0.0232	93	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0230	92	70.2 - 123	
Chlorobenzene	1	0.025	0.0248	99.1	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0232	92.7	74 - 121	
Chloroethane	1	0.025	0.0250	99.9	61.7 - 135	
Chloroform	1	0.025	0.0233	93.1	76 - 121	
Chloromethane	1	0.025	0.0199	79.8	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0234	93.4	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0227	90.7	78.2 - 120	
Ethylbenzene	1	0.025	0.0242	96.8	78.8 - 122	
Isopropylbenzene	1	0.025	0.0250	100	78.6 - 132	
m&p-Xylenes	1	0.05	0.0491	98.1	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0236	94.5	71.2 - 126	
Methylene Chloride	1	0.025	0.0226	90.5	70.3 - 120	
Naphthalene	1	0.025	0.0210	84	68.4 - 128	
n-Butylbenzene	1	0.025	0.0214	85.6	76.2 - 126	
n-Propylbenzene	1	0.025	0.0243	97.1	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0236	94.3	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0248	99.2	74 - 131	
sec-Butylbenzene	1	0.025	0.0249	99.6	74.4 - 127	
Styrene	1	0.025	0.0242	96.8	80.4 - 126	
Tetrachloroethene	1	0.025	0.0269	108	72.6 - 126	
Toluene	1	0.025	0.0228	91.2	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0244	97.5	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0225	90	74.3 - 123	
Trichloroethene	1	0.025	0.0252	101	77.7 - 118	
Vinyl chloride	1	0.025	0.0233	93.3	65.9 - 128	
Xylenes, Total	1	0.075	0.0726	96.9	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG755901
Analysis Date: 11/21/2014 1:17:00 PM Analyst: 644
Instrument ID: VOCMS23
Sample Numbers: L733743-128, -135, -137, -138, -139, -142, -143, -144

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0289	116	0.0248	99.3	74.2 - 124	15.1	20	
1,1,1-Trichloroethane	1	0.025	0.0288	115	0.0254	102	73.2 - 123	12.5	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0265	106	0.0237	94.6	70.7 - 122	11.3	20	
1,1,2-Trichloroethane	1	0.025	0.0270	108	0.0241	96.3	77.7 - 118	11.4	20	
1,1-Dichloroethane	1	0.025	0.0269	108	0.0225	90	70.7 - 126	17.8	20	
1,1-Dichloroethene	1	0.025	0.0275	110	0.0229	91.5	67.8 - 129	18.2	20	
1,2,4-Trimethylbenzene	1	0.025	0.0279	112	0.0239	95.5	75 - 123	15.8	20	
1,2-Dibromoethane	1	0.025	0.0257	103	0.0233	93.3	76.6 - 121	9.61	20	
1,2-Dichloroethane	1	0.025	0.0250	100	0.0222	88.7	68.8 - 124	11.9	20	
1,2-Dichloropropane	1	0.025	0.0266	107	0.0231	92.5	76.5 - 119	14.1	20	
1,3,5-Trimethylbenzene	1	0.025	0.0286	114	0.0246	98.6	75.6 - 124	14.8	20	
2-Butanone (MEK)	1	0.125	0.0971	77.7	0.0885	70.8	55 - 149	9.28	20	
2-Hexanone	1	0.125	0.1120	89.6	0.1023	81.9	65.6 - 144	8.99	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1163	93.1	0.1031	82.5	70.5 - 133	12.1	20	
Acetone	1	0.125	0.1032	82.5	0.0904	72.3	35.6 - 163	13.2	23.9	
Benzene	1	0.025	0.0266	106	0.0229	91.5	74.8 - 121	15.1	20	
Bromodichloromethane	1	0.025	0.0258	103	0.0224	89.5	75.1 - 116	14.2	20	
Bromoform	1	0.025	0.0270	108	0.0238	95.1	67.5 - 130	12.8	20	
Bromomethane	1	0.025	0.0302	121	0.0251	100	49.9 - 162	18.6	20	
Carbon disulfide	1	0.025	0.0277	111	0.0232	93	64.6 - 140	17.3	20	
Carbon tetrachloride	1	0.025	0.0269	107	0.0230	92	70.2 - 123	15.5	20	
Chlorobenzene	1	0.025	0.0282	113	0.0248	99.1	78.1 - 119	13.1	20	
Chlorodibromomethane	1	0.025	0.0262	105	0.0232	92.7	74 - 121	12.4	20	
Chloroethane	1	0.025	0.0298	119	0.0250	99.9	61.7 - 135	17.7	20	
Chloroform	1	0.025	0.0274	110	0.0233	93.1	76 - 121	16.2	20	
Chloromethane	1	0.025	0.0242	96.8	0.0199	79.8	61.5 - 129	19.3	20	
cis-1,2-Dichloroethene	1	0.025	0.0274	110	0.0234	93.4	76 - 119	16.1	20	
cis-1,3-Dichloropropene	1	0.025	0.0259	104	0.0227	90.7	78.2 - 120	13.2	20	
Ethylbenzene	1	0.025	0.0275	110	0.0242	96.8	78.8 - 122	12.7	20	
Isopropylbenzene	1	0.025	0.0287	115	0.0250	100	78.6 - 132	13.8	20	
m&p-Xylenes	1	0.05	0.0558	112	0.0491	98.1	78.8 - 121	12.9	20	
Methyl tert-butyl ether	1	0.025	0.0278	111	0.0236	94.5	71.2 - 126	16.3	20	
Methylene Chloride	1	0.025	0.0273	109	0.0226	90.5	70.3 - 120	18.6	20	
Naphthalene	1	0.025	0.0249	99.8	0.0210	84	68.4 - 128	17.1	20	
n-Butylbenzene	1	0.025	0.0250	100	0.0214	85.6	76.2 - 126	15.7	20	
n-Propylbenzene	1	0.025	0.0279	112	0.0243	97.1	78.2 - 122	14	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755901**
 Analysis Date: 11/21/2014 1:17:00 PM Analyst: 644
 Instrument ID: VOCMS23
 Sample Numbers: L733743-128, -135, -137, -138, -139, -142, -143, -144

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
o-Xylene	1	0.025	0.0274	110	0.0236	94.3	77.6 - 122		15	20
p-Isopropyltoluene	1	0.025	0.0286	114	0.0248	99.2	74 - 131		14.3	20
sec-Butylbenzene	1	0.025	0.0291	116	0.0249	99.6	74.4 - 127		15.5	20
Styrene	1	0.025	0.0277	111	0.0242	96.8	80.4 - 126		13.6	20
Tetrachloroethene	1	0.025	0.0300	120	0.0269	108	72.6 - 126		10.8	20
Toluene	1	0.025	0.0261	104	0.0228	91.2	79.7 - 116		13.4	20
trans-1,2-Dichloroethene	1	0.025	0.0289	116	0.0244	97.5	72.6 - 121		17.1	20
trans-1,3-Dichloropropene	1	0.025	0.0242	97	0.0225	90	74.3 - 123		7.5	20
Trichloroethene	1	0.025	0.0291	116	0.0252	101	77.7 - 118		14.4	20
Vinyl chloride	1	0.025	0.0280	112	0.0233	93.3	65.9 - 128		18.3	20
Xylenes, Total	1	0.075	0.0832	111	0.0726	96.9	78.7 - 121		13.6	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0252	101	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0214	85.7	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0232	92.9	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0251	101	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0223	89	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0225	90.1	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0239	95.7	75 - 123	
1,2-Dibromoethane	1	0.025	0.0252	101	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0188	75	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0245	98	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0239	95.7	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1053	84.3	55 - 149	
2-Hexanone	1	0.125	0.1325	106	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1157	92.6	70.5 - 133	
Acetone	1	0.125	0.0963	77	35.6 - 163	
Benzene	1	0.025	0.0220	88.1	74.8 - 121	
Bromodichloromethane	1	0.025	0.0221	88.3	75.1 - 116	
Bromoform	1	0.025	0.0240	95.9	67.5 - 130	
Bromomethane	1	0.025	0.0138	55.3	49.9 - 162	
Carbon disulfide	1	0.025	0.0255	102	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0214	85.5	70.2 - 123	
Chlorobenzene	1	0.025	0.0243	97.3	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0258	103	74 - 121	
Chloroethane	1	0.025	0.0129	51.8	61.7 - 135	J4
Chloroform	1	0.025	0.0214	85.6	76 - 121	
Chloromethane	1	0.025	0.0230	91.9	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0228	91.2	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0239	95.8	78.2 - 120	
Ethylbenzene	1	0.025	0.0244	97.7	78.8 - 122	
Isopropylbenzene	1	0.025	0.0253	101	78.6 - 132	
m&p-Xylenes	1	0.05	0.0491	98.2	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0227	90.9	71.2 - 126	
Methylene Chloride	1	0.025	0.0228	91.3	70.3 - 120	
Naphthalene	1	0.025	0.0288	115	68.4 - 128	
n-Butylbenzene	1	0.025	0.0259	103	76.2 - 126	
n-Propylbenzene	1	0.025	0.0251	100	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0264	105	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0236	94.5	74 - 131	
sec-Butylbenzene	1	0.025	0.0242	97	74.4 - 127	
Styrene	1	0.025	0.0260	104	80.4 - 126	
Tetrachloroethene	1	0.025	0.0243	97	72.6 - 126	
Toluene	1	0.025	0.0220	88.1	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0241	96.3	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0242	96.9	74.3 - 123	
Trichloroethene	1	0.025	0.0238	95.1	77.7 - 118	
Vinyl chloride	1	0.025	0.0202	80.7	65.9 - 128	
Xylenes, Total	1	0.075	0.0755	101	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0279	112	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0244	97.7	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0268	107	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0284	114	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0248	99.1	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0253	101	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0267	107	75 - 123	
1,2-Dibromoethane	1	0.025	0.0279	112	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0207	82.6	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0265	106	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0280	112	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1174	93.9	55 - 149	
2-Hexanone	1	0.125	0.1511	121	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1255	100	70.5 - 133	
Acetone	1	0.125	0.1075	86	35.6 - 163	
Benzene	1	0.025	0.0245	98.1	74.8 - 121	
Bromodichloromethane	1	0.025	0.0243	97.1	75.1 - 116	
Bromoform	1	0.025	0.0274	110	67.5 - 130	
Bromomethane	1	0.025	0.0157	62.7	49.9 - 162	
Carbon disulfide	1	0.025	0.0284	114	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0244	97.5	70.2 - 123	
Chlorobenzene	1	0.025	0.0272	109	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0290	116	74 - 121	
Chloroethane	1	0.025	0.0144	57.6	61.7 - 135	J4
Chloroform	1	0.025	0.0239	95.5	76 - 121	
Chloromethane	1	0.025	0.0254	101	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0253	101	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0268	107	78.2 - 120	
Ethylbenzene	1	0.025	0.0275	110	78.8 - 122	
Isopropylbenzene	1	0.025	0.0291	116	78.6 - 132	
m&p-Xylenes	1	0.05	0.0554	111	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0250	100	71.2 - 126	
Methylene Chloride	1	0.025	0.0251	100	70.3 - 120	
Naphthalene	1	0.025	0.0317	127	68.4 - 128	
n-Butylbenzene	1	0.025	0.0287	115	76.2 - 126	
n-Propylbenzene	1	0.025	0.0282	113	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0295	118	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0269	107	74 - 131	
sec-Butylbenzene	1	0.025	0.0278	111	74.4 - 127	
Styrene	1	0.025	0.0290	116	80.4 - 126	
Tetrachloroethene	1	0.025	0.0278	111	72.6 - 126	
Toluene	1	0.025	0.0244	97.6	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0270	108	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0265	106	74.3 - 123	
Trichloroethene	1	0.025	0.0256	103	77.7 - 118	
Vinyl chloride	1	0.025	0.0230	92.1	65.9 - 128	
Xylenes, Total	1	0.075	0.0849	113	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG756231
 Analysis Date: 11/22/2014 7:17:00 PM Analyst: 644
 Instrument ID: VOCMS30
 Sample Numbers: L733743-13, -14, -15, -26, -27, -28

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0252	101	0.0279	112	74.2 - 124		10.2	20
1,1,1-Trichloroethane	1	0.025	0.0214	85.7	0.0244	97.7	73.2 - 123		13.1	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0232	92.9	0.0268	107	70.7 - 122		14.4	20
1,1,2-Trichloroethane	1	0.025	0.0251	101	0.0284	114	77.7 - 118		12.4	20
1,1-Dichloroethane	1	0.025	0.0223	89	0.0248	99.1	70.7 - 126		10.7	20
1,1-Dichloroethene	1	0.025	0.0225	90.1	0.0253	101	67.8 - 129		11.7	20
1,2,4-Trimethylbenzene	1	0.025	0.0239	95.7	0.0267	107	75 - 123		11	20
1,2-Dibromoethane	1	0.025	0.0252	101	0.0279	112	76.6 - 121		10.3	20
1,2-Dichloroethane	1	0.025	0.0188	75	0.0207	82.6	68.8 - 124		9.67	20
1,2-Dichloropropane	1	0.025	0.0245	98	0.0265	106	76.5 - 119		7.73	20
1,3,5-Trimethylbenzene	1	0.025	0.0239	95.7	0.0280	112	75.6 - 124		15.8	20
2-Butanone (MEK)	1	0.125	0.1053	84.3	0.1174	93.9	55 - 149		10.8	20
2-Hexanone	1	0.125	0.1325	106	0.1511	121	65.6 - 144		13.1	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1157	92.6	0.1255	100	70.5 - 133		8.14	20
Acetone	1	0.125	0.0963	77	0.1075	86	35.6 - 163		11	23.9
Benzene	1	0.025	0.0220	88.1	0.0245	98.1	74.8 - 121		10.8	20
Bromodichloromethane	1	0.025	0.0221	88.3	0.0243	97.1	75.1 - 116		9.51	20
Bromoform	1	0.025	0.0240	95.9	0.0274	110	67.5 - 130		13.3	20
Bromomethane	1	0.025	0.0138	55.3	0.0157	62.7	49.9 - 162		12.5	20
Carbon disulfide	1	0.025	0.0255	102	0.0284	114	64.6 - 140		10.8	20
Carbon tetrachloride	1	0.025	0.0214	85.5	0.0244	97.5	70.2 - 123		13	20
Chlorobenzene	1	0.025	0.0243	97.3	0.0272	109	78.1 - 119		11.2	20
Chlorodibromomethane	1	0.025	0.0258	103	0.0290	116	74 - 121		11.7	20
Chloroethane	1	0.025	0.0129	51.8	0.0144	57.6	61.7 - 135	J4	10.6	20
Chloroform	1	0.025	0.0214	85.6	0.0239	95.5	76 - 121		11	20
Chloromethane	1	0.025	0.0230	91.9	0.0254	101	61.5 - 129		9.89	20
cis-1,2-Dichloroethene	1	0.025	0.0228	91.2	0.0253	101	76 - 119		10.5	20
cis-1,3-Dichloropropene	1	0.025	0.0239	95.8	0.0268	107	78.2 - 120		11.2	20
Ethylbenzene	1	0.025	0.0244	97.7	0.0275	110	78.8 - 122		11.7	20
Isopropylbenzene	1	0.025	0.0253	101	0.0291	116	78.6 - 132		13.8	20
m&p-Xylenes	1	0.05	0.0491	98.2	0.0554	111	78.8 - 121		12.1	20
Methyl tert-butyl ether	1	0.025	0.0227	90.9	0.0250	100	71.2 - 126		9.55	20
Methylene Chloride	1	0.025	0.0228	91.3	0.0251	100	70.3 - 120		9.52	20
Naphthalene	1	0.025	0.0288	115	0.0317	127	68.4 - 128		9.48	20
n-Butylbenzene	1	0.025	0.0259	103	0.0287	115	76.2 - 126		10.5	20
n-Propylbenzene	1	0.025	0.0251	100	0.0282	113	78.2 - 122		11.7	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
o-Xylene	1	0.025	0.0264	105	0.0295	118	77.6 - 122		11.2	20
p-Isopropyltoluene	1	0.025	0.0236	94.5	0.0269	107	74 - 131		12.9	20
sec-Butylbenzene	1	0.025	0.0242	97	0.0278	111	74.4 - 127		13.6	20
Styrene	1	0.025	0.0260	104	0.0290	116	80.4 - 126		11	20
Tetrachloroethene	1	0.025	0.0243	97	0.0278	111	72.6 - 126		13.5	20
Toluene	1	0.025	0.0220	88.1	0.0244	97.6	79.7 - 116		10.2	20
trans-1,2-Dichloroethene	1	0.025	0.0241	96.3	0.0270	108	72.6 - 121		11.6	20
trans-1,3-Dichloropropene	1	0.025	0.0242	96.9	0.0265	106	74.3 - 123		8.98	20
Trichloroethene	1	0.025	0.0238	95.1	0.0256	103	77.7 - 118		7.47	20
Vinyl chloride	1	0.025	0.0202	80.7	0.0230	92.1	65.9 - 128		13.2	20
Xylenes, Total	1	0.075	0.0755	101	0.0849	113	78.7 - 121		11.8	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0225	90.1	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0293	117	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0258	103	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0246	98.4	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0302	121	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0325	130	67.8 - 129	J4
1,2,4-Trimethylbenzene	1	0.025	0.0241	96.4	75 - 123	
1,2-Dibromoethane	1	0.025	0.0249	99.4	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0303	121	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0274	110	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0245	97.9	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.2310	185	55 - 149	J4
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1478	118	70.5 - 133	
Acetone	1	0.125	0.2983	239	35.6 - 163	J4
Benzene	1	0.025	0.0280	112	74.8 - 121	
Bromodichloromethane	1	0.025	0.0270	108	75.1 - 116	
Bromoform	1	0.025	0.0212	84.7	67.5 - 130	
Bromomethane	1	0.025	0.0268	107	49.9 - 162	
Carbon tetrachloride	1	0.025	0.0282	113	70.2 - 123	
Chlorobenzene	1	0.025	0.0240	96.1	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0244	97.4	74 - 121	
Chloroethane	1	0.025	0.0281	112	61.7 - 135	
Chloroform	1	0.025	0.0294	118	76 - 121	
Chloromethane	1	0.025	0.0260	104	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0280	112	76 - 119	
Ethylbenzene	1	0.025	0.0246	98.5	78.8 - 122	
Isopropylbenzene	1	0.025	0.0241	96.6	78.6 - 132	
m&p-Xylenes	1	0.05	0.0481	96.2	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0283	113	71.2 - 126	
Methylene Chloride	1	0.025	0.0261	105	70.3 - 120	
Naphthalene	1	0.025	0.0260	104	68.4 - 128	
n-Butylbenzene	1	0.025	0.0295	118	76.2 - 126	
n-Propylbenzene	1	0.025	0.0254	102	78.2 - 122	
o-Xylene	1	0.025	0.0241	96.6	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0235	94	74 - 131	
sec-Butylbenzene	1	0.025	0.0244	97.6	74.4 - 127	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Styrene	1	0.025	0.0245	98.1	80.4 - 126	
Tetrachloroethene	1	0.025	0.0219	87.6	72.6 - 126	
Toluene	1	0.025	0.0271	109	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0268	107	72.6 - 121	
Trichloroethene	1	0.025	0.0243	97.1	77.7 - 118	
Vinyl chloride	1	0.025	0.0281	112	65.9 - 128	
Xylenes, Total	1	0.075	0.0723	96.3	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0227	90.7	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0291	116	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0247	98.8	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0240	96.2	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0297	119	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0311	124	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0235	93.9	75 - 123	
1,2-Dibromoethane	1	0.025	0.0236	94.6	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0296	118	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0268	107	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0238	95.3	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.2148	172	55 - 149	J4
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1420	114	70.5 - 133	
Acetone	1	0.125	0.2689	215	35.6 - 163	J4
Benzene	1	0.025	0.0278	111	74.8 - 121	
Bromodichloromethane	1	0.025	0.0269	108	75.1 - 116	
Bromoform	1	0.025	0.0205	82.1	67.5 - 130	
Bromomethane	1	0.025	0.0265	106	49.9 - 162	
Carbon tetrachloride	1	0.025	0.0276	110	70.2 - 123	
Chlorobenzene	1	0.025	0.0234	93.6	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0234	93.4	74 - 121	
Chloroethane	1	0.025	0.0282	113	61.7 - 135	
Chloroform	1	0.025	0.0291	116	76 - 121	
Chloromethane	1	0.025	0.0252	101	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0275	110	76 - 119	
Ethylbenzene	1	0.025	0.0237	94.8	78.8 - 122	
Isopropylbenzene	1	0.025	0.0238	95.3	78.6 - 132	
m&p-Xylenes	1	0.05	0.0472	94.4	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0280	112	71.2 - 126	
Methylene Chloride	1	0.025	0.0253	101	70.3 - 120	
Naphthalene	1	0.025	0.0261	104	68.4 - 128	
n-Butylbenzene	1	0.025	0.0290	116	76.2 - 126	
n-Propylbenzene	1	0.025	0.0248	99.1	78.2 - 122	
o-Xylene	1	0.025	0.0233	93.4	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0231	92.2	74 - 131	
sec-Butylbenzene	1	0.025	0.0240	96.2	74.4 - 127	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Styrene	1	0.025	0.0235	94.2	80.4 - 126	
Tetrachloroethene	1	0.025	0.0217	86.7	72.6 - 126	
Toluene	1	0.025	0.0266	106	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0257	103	72.6 - 121	
Trichloroethene	1	0.025	0.0242	96.6	77.7 - 118	
Vinyl chloride	1	0.025	0.0277	111	65.9 - 128	
Xylenes, Total	1	0.075	0.0705	94.1	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0225	90.1	0.0227	90.7	74.2 - 124		0.65	20
1,1,1-Trichloroethane	1	0.025	0.0293	117	0.0291	116	73.2 - 123		0.69	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0258	103	0.0247	98.8	70.7 - 122		4.16	20
1,1,2-Trichloroethane	1	0.025	0.0246	98.4	0.0240	96.2	77.7 - 118		2.24	20
1,1-Dichloroethane	1	0.025	0.0302	121	0.0297	119	70.7 - 126		1.89	20
1,1-Dichloroethene	1	0.025	0.0325	130	0.0311	124	67.8 - 129	J4	4.39	20
1,2,4-Trimethylbenzene	1	0.025	0.0241	96.4	0.0235	93.9	75 - 123		2.65	20
1,2-Dibromoethane	1	0.025	0.0249	99.4	0.0236	94.6	76.6 - 121		4.98	20
1,2-Dichloroethane	1	0.025	0.0303	121	0.0296	118	68.8 - 124		2.42	20
1,2-Dichloropropane	1	0.025	0.0274	110	0.0268	107	76.5 - 119		2.22	20
1,3,5-Trimethylbenzene	1	0.025	0.0245	97.9	0.0238	95.3	75.6 - 124		2.68	20
2-Butanone (MEK)	1	0.125	0.2310	185	0.2148	172	55 - 149	J4	7.26	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1478	118	0.1420	114	70.5 - 133		4.01	20
Acetone	1	0.125	0.2983	239	0.2689	215	35.6 - 163	J4	10.4	23.9
Benzene	1	0.025	0.0280	112	0.0278	111	74.8 - 121		0.88	20
Bromodichloromethane	1	0.025	0.0270	108	0.0269	108	75.1 - 116		0.58	20
Bromoform	1	0.025	0.0212	84.7	0.0205	82.1	67.5 - 130		3.18	20
Bromomethane	1	0.025	0.0268	107	0.0265	106	49.9 - 162		1.05	20
Carbon tetrachloride	1	0.025	0.0282	113	0.0276	110	70.2 - 123		2.25	20
Chlorobenzene	1	0.025	0.0240	96.1	0.0234	93.6	78.1 - 119		2.61	20
Chlorodibromomethane	1	0.025	0.0244	97.4	0.0234	93.4	74 - 121		4.2	20
Chloroethane	1	0.025	0.0281	112	0.0282	113	61.7 - 135		0.39	20
Chloroform	1	0.025	0.0294	118	0.0291	116	76 - 121		1.01	20
Chloromethane	1	0.025	0.0260	104	0.0252	101	61.5 - 129		3.06	20
cis-1,2-Dichloroethene	1	0.025	0.0280	112	0.0275	110	76 - 119		1.82	20
Ethylbenzene	1	0.025	0.0246	98.5	0.0237	94.8	78.8 - 122		3.85	20
Isopropylbenzene	1	0.025	0.0241	96.6	0.0238	95.3	78.6 - 132		1.26	20
m&p-Xylenes	1	0.05	0.0481	96.2	0.0472	94.4	78.8 - 121		1.91	20
Methyl tert-butyl ether	1	0.025	0.0283	113	0.0280	112	71.2 - 126		0.96	20
Methylene Chloride	1	0.025	0.0261	105	0.0253	101	70.3 - 120		3.27	20
Naphthalene	1	0.025	0.0260	104	0.0261	104	68.4 - 128		0.38	20
n-Butylbenzene	1	0.025	0.0295	118	0.0290	116	76.2 - 126		1.89	20
n-Propylbenzene	1	0.025	0.0254	102	0.0248	99.1	78.2 - 122		2.51	20
o-Xylene	1	0.025	0.0241	96.6	0.0233	93.4	77.6 - 122		3.38	20
p-Isopropyltoluene	1	0.025	0.0235	94	0.0231	92.2	74 - 131		1.95	20
sec-Butylbenzene	1	0.025	0.0244	97.6	0.0240	96.2	74.4 - 127		1.5	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	% RPD	Control RPD Limits	Qual
Styrene	1	0.025	0.0245	98.1	0.0235	94.2	80.4 - 126		4.15	20	
Tetrachloroethene	1	0.025	0.0219	87.6	0.0217	86.7	72.6 - 126		1.08	20	
Toluene	1	0.025	0.0271	109	0.0266	106	79.7 - 116		1.94	20	
trans-1,2-Dichloroethene	1	0.025	0.0268	107	0.0257	103	72.6 - 121		4.34	20	
Trichloroethene	1	0.025	0.0243	97.1	0.0242	96.6	77.7 - 118		0.5	20	
Vinyl chloride	1	0.025	0.0281	112	0.0277	111	65.9 - 128		1.43	20	
Xylenes, Total	1	0.075	0.0723	96.3	0.0705	94.1	78.7 - 121		2.4	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0233	93.4	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0264	106	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0241	96.3	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0248	99.2	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0265	106	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0234	93.8	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0227	91	75 - 123	
1,2-Dibromoethane	1	0.025	0.0224	89.4	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0237	94.9	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0251	101	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0240	96.2	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1906	152	55 - 149	J4
2-Hexanone	1	0.125	0.1466	117	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1203	96.3	70.5 - 133	
Acetone	1	0.125	0.2290	183	35.6 - 163	J4
Benzene	1	0.025	0.0259	104	74.8 - 121	
Bromodichloromethane	1	0.025	0.0229	91.5	75.1 - 116	
Bromoform	1	0.025	0.0208	83.1	67.5 - 130	
Bromomethane	1	0.025	0.0398	159	49.9 - 162	
Carbon disulfide	1	0.025	0.0238	95.3	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0242	96.9	70.2 - 123	
Chlorobenzene	1	0.025	0.0237	94.7	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0220	87.9	74 - 121	
Chloroethane	1	0.025	0.0267	107	61.7 - 135	
Chloroform	1	0.025	0.0256	102	76 - 121	
Chloromethane	1	0.025	0.0213	85.1	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0244	97.7	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0240	95.9	78.2 - 120	
Ethylbenzene	1	0.025	0.0238	95.1	78.8 - 122	
Isopropylbenzene	1	0.025	0.0236	94.6	78.6 - 132	
m&p-Xylenes	1	0.05	0.0471	94.2	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0260	104	71.2 - 126	
Methylene Chloride	1	0.025	0.0260	104	70.3 - 120	
Naphthalene	1	0.025	0.0252	101	68.4 - 128	
n-Butylbenzene	1	0.025	0.0266	106	76.2 - 126	
n-Propylbenzene	1	0.025	0.0242	96.8	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0238	95.1	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0241	96.3	74 - 131	
sec-Butylbenzene	1	0.025	0.0244	97.6	74.4 - 127	
Styrene	1	0.025	0.0233	93.3	80.4 - 126	
Tetrachloroethene	1	0.025	0.0236	94.3	72.6 - 126	
Toluene	1	0.025	0.0234	93.5	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0243	97.3	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0227	90.8	74.3 - 123	
Trichloroethene	1	0.025	0.0244	97.6	77.7 - 118	
Vinyl chloride	1	0.025	0.0227	91	65.9 - 128	
Xylenes, Total	1	0.075	0.0709	94.5	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0231	92.6	74.2 - 124	
1,1,1-Trichloroethane	1	0.025	0.0254	102	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0229	91.5	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0241	96.4	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0261	104	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0227	90.9	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0222	88.9	75 - 123	
1,2-Dibromoethane	1	0.025	0.0216	86.5	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0221	88.3	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0249	99.6	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0235	94	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1716	137	55 - 149	
2-Hexanone	1	0.125	0.1447	116	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1119	89.5	70.5 - 133	
Acetone	1	0.125	0.2213	177	35.6 - 163	J4
Benzene	1	0.025	0.0251	100	74.8 - 121	
Bromodichloromethane	1	0.025	0.0221	88.4	75.1 - 116	
Bromoform	1	0.025	0.0207	83	67.5 - 130	
Bromomethane	1	0.025	0.0387	155	49.9 - 162	
Carbon disulfide	1	0.025	0.0223	89	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0237	94.8	70.2 - 123	
Chlorobenzene	1	0.025	0.0233	93.1	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0218	87.2	74 - 121	
Chloroethane	1	0.025	0.0255	102	61.7 - 135	
Chloroform	1	0.025	0.0251	100	76 - 121	
Chloromethane	1	0.025	0.0201	80.4	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0235	94	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0234	93.7	78.2 - 120	
Ethylbenzene	1	0.025	0.0233	93.4	78.8 - 122	
Isopropylbenzene	1	0.025	0.0237	94.8	78.6 - 132	
m&p-Xylenes	1	0.05	0.0465	93.1	78.8 - 121	
Methyl tert-butyl ether	1	0.025	0.0240	95.8	71.2 - 126	
Methylene Chloride	1	0.025	0.0238	95.3	70.3 - 120	
Naphthalene	1	0.025	0.0231	92.4	68.4 - 128	
n-Butylbenzene	1	0.025	0.0253	101	76.2 - 126	
n-Propylbenzene	1	0.025	0.0239	95.6	78.2 - 122	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
o-Xylene	1	0.025	0.0237	94.8	77.6 - 122	
p-Isopropyltoluene	1	0.025	0.0236	94.3	74 - 131	
sec-Butylbenzene	1	0.025	0.0243	97.3	74.4 - 127	
Styrene	1	0.025	0.0224	89.7	80.4 - 126	
Tetrachloroethene	1	0.025	0.0234	93.7	72.6 - 126	
Toluene	1	0.025	0.0228	91.3	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0237	94.9	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0206	82.5	74.3 - 123	
Trichloroethene	1	0.025	0.0238	95.4	77.7 - 118	
Vinyl chloride	1	0.025	0.0218	87.2	65.9 - 128	
Xylenes, Total	1	0.075	0.0702	93.6	78.7 - 121	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG756413
Analysis Date: 11/23/2014 10:50:00 PM Analyst: 644
Instrument ID: VOCMS6
Sample Numbers: L733743-148, -150, -158, -159, -160

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0233	93.4	0.0231	92.6	74.2 - 124		0.84	20
1,1,1-Trichloroethane	1	0.025	0.0264	106	0.0254	102	73.2 - 123		3.89	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0241	96.3	0.0229	91.5	70.7 - 122		5.07	20
1,1,2-Trichloroethane	1	0.025	0.0248	99.2	0.0241	96.4	77.7 - 118		2.9	20
1,1-Dichloroethane	1	0.025	0.0265	106	0.0261	104	70.7 - 126		1.57	20
1,1-Dichloroethene	1	0.025	0.0234	93.8	0.0227	90.9	67.8 - 129		3.17	20
1,2,4-Trimethylbenzene	1	0.025	0.0227	91	0.0222	88.9	75 - 123		2.29	20
1,2-Dibromoethane	1	0.025	0.0224	89.4	0.0216	86.5	76.6 - 121		3.34	20
1,2-Dichloroethane	1	0.025	0.0237	94.9	0.0221	88.3	68.8 - 124		7.22	20
1,2-Dichloropropane	1	0.025	0.0251	101	0.0249	99.6	76.5 - 119		0.98	20
1,3,5-Trimethylbenzene	1	0.025	0.0240	96.2	0.0235	94	75.6 - 124		2.31	20
2-Butanone (MEK)	1	0.125	0.1906	152	0.1716	137	55 - 149	J4	10.5	20
2-Hexanone	1	0.125	0.1466	117	0.1447	116	65.6 - 144		1.34	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1203	96.3	0.1119	89.5	70.5 - 133		7.25	20
Acetone	1	0.125	0.2290	183	0.2213	177	35.6 - 163	J4	3.39	23.9
Benzene	1	0.025	0.0259	104	0.0251	100	74.8 - 121		3.14	20
Bromodichloromethane	1	0.025	0.0229	91.5	0.0221	88.4	75.1 - 116		3.39	20
Bromoform	1	0.025	0.0208	83.1	0.0207	83	67.5 - 130		0.11	20
Bromomethane	1	0.025	0.0398	159	0.0387	155	49.9 - 162		2.89	20
Carbon disulfide	1	0.025	0.0238	95.3	0.0223	89	64.6 - 140		6.87	20
Carbon tetrachloride	1	0.025	0.0242	96.9	0.0237	94.8	70.2 - 123		2.17	20
Chlorobenzene	1	0.025	0.0237	94.7	0.0233	93.1	78.1 - 119		1.61	20
Chlorodibromomethane	1	0.025	0.0220	87.9	0.0218	87.2	74 - 121		0.8	20
Chloroethane	1	0.025	0.0267	107	0.0255	102	61.7 - 135		4.57	20
Chloroform	1	0.025	0.0256	102	0.0251	100	76 - 121		1.97	20
Chloromethane	1	0.025	0.0213	85.1	0.0201	80.4	61.5 - 129		5.71	20
cis-1,2-Dichloroethene	1	0.025	0.0244	97.7	0.0235	94	76 - 119		3.87	20
cis-1,3-Dichloropropene	1	0.025	0.0240	95.9	0.0234	93.7	78.2 - 120		2.3	20
Ethylbenzene	1	0.025	0.0238	95.1	0.0233	93.4	78.8 - 122		1.85	20
Isopropylbenzene	1	0.025	0.0236	94.6	0.0237	94.8	78.6 - 132		0.22	20
m&p-Xylenes	1	0.05	0.0471	94.2	0.0465	93.1	78.8 - 121		1.16	20
Methyl tert-butyl ether	1	0.025	0.0260	104	0.0240	95.8	71.2 - 126		8.02	20
Methylene Chloride	1	0.025	0.0260	104	0.0238	95.3	70.3 - 120		8.85	20
Naphthalene	1	0.025	0.0252	101	0.0231	92.4	68.4 - 128		8.74	20
n-Butylbenzene	1	0.025	0.0266	106	0.0253	101	76.2 - 126		4.82	20
n-Propylbenzene	1	0.025	0.0242	96.8	0.0239	95.6	78.2 - 122		1.2	20

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
o-Xylene	1	0.025	0.0238	95.1	0.0237	94.8	77.6 - 122	0.37	20	
p-Isopropyltoluene	1	0.025	0.0241	96.3	0.0236	94.3	74 - 131	2.01	20	
sec-Butylbenzene	1	0.025	0.0244	97.6	0.0243	97.3	74.4 - 127	0.37	20	
Styrene	1	0.025	0.0233	93.3	0.0224	89.7	80.4 - 126	3.99	20	
Tetrachloroethene	1	0.025	0.0236	94.3	0.0234	93.7	72.6 - 126	0.57	20	
Toluene	1	0.025	0.0234	93.5	0.0228	91.3	79.7 - 116	2.45	20	
trans-1,2-Dichloroethene	1	0.025	0.0243	97.3	0.0237	94.9	72.6 - 121	2.44	20	
trans-1,3-Dichloropropene	1	0.025	0.0227	90.8	0.0206	82.5	74.3 - 123	9.58	20	
Trichloroethene	1	0.025	0.0244	97.6	0.0238	95.4	77.7 - 118	2.36	20	
Vinyl chloride	1	0.025	0.0227	91	0.0218	87.2	65.9 - 128	4.19	20	
Xylenes, Total	1	0.075	0.0709	94.5	0.0702	93.6	78.7 - 121	0.9	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754786
 Analysis Date: 11/18/2014 2:21:00 PM Analyst: 644
 Instrument ID: VOCMS2
 Sample Numbers: L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20

Matrix Spike / Matrix Spike Duplicate

L733743-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0277	111	0.0266	107	64 - 128		3.79	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0325	130	0.0312	125	58.7 - 134		3.82	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0283	113	0.0284	113	56 - 132		0.21	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0252	101	0.0247	98.7	66.3 - 125		1.97	20	
1,1-Dichloroethane	1	0.025	0.0	0.0291	116	0.0279	112	58.5 - 132		4.24	20	
1,1-Dichloroethene	1	0.025	0.0	0.0304	122	0.0281	112	51.1 - 140		7.94	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0273	109	0.0269	107	57.4 - 137		1.74	20	
1,2-Dibromoethane	1	0.025	0.0	0.0250	99.9	0.0244	97.5	67.1 - 125		2.41	20	
1,2-Dichloroethane	1	0.025	0.0	0.0277	111	0.0273	109	60 - 126		1.16	20	
1,2-Dichloropropane	1	0.025	0.0	0.0275	110	0.0269	108	64.2 - 123		2.39	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0274	109	0.0268	107	63.6 - 132		1.86	20.5	
2-Butanone (MEK)	1	0.125	0.0	0.1346	108	0.1352	108	22.4 - 138		0.45	27	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1498	120	0.1506	120	60.8 - 140		0.5	25.1	
Acetone	1	0.125	0.0017	0.1242	98	0.1206	95.1	10 - 130		2.91	27.9	
Benzene	1	0.025	0.0	0.0258	103	0.0250	100	54.3 - 133		3	20	
Bromodichloromethane	1	0.025	0.0	0.0295	118	0.0291	116	63.9 - 121		1.36	20	
Bromoform	1	0.025	0.0	0.0264	106	0.0262	105	59.5 - 134		0.9	20.5	
Bromomethane	1	0.025	0.0	0.0307	123	0.0286	115	41.7 - 155		6.85	21.9	
Carbon tetrachloride	1	0.025	0.0	0.0314	126	0.0301	120	55.7 - 134		4.37	20	
Chlorobenzene	1	0.025	0.0	0.0261	104	0.0251	100	67 - 125		3.95	20	
Chlorodibromomethane	1	0.025	0.0	0.0248	99.1	0.0247	98.6	64.3 - 125		0.5	20.8	
Chloroethane	1	0.025	0.0	0.0278	111	0.0263	105	51.5 - 136		5.38	40	
Chloroform	1	0.025	0.0	0.0302	121	0.0291	117	63 - 129		3.44	20	
Chloromethane	1	0.025	0.0	0.0254	102	0.0239	95.7	42.4 - 135		5.93	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0286	114	0.0278	111	59.2 - 129		2.85	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0269	108	0.0261	105	66.4 - 125		2.87	20	
Ethylbenzene	1	0.025	0.0	0.0263	105	0.0251	100	61.4 - 133		4.62	20	
Isopropylbenzene	1	0.025	0.0	0.0276	110	0.0266	106	66.8 - 141		3.53	20	
m&p-Xylenes	1	0.05	0.0	0.0522	104	0.0498	99.6	61.7 - 133		4.69	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0295	118	0.0304	122	57.7 - 134		2.97	20	
Methylene Chloride	1	0.025	0.0	0.0261	105	0.0255	102	58.1 - 122		2.39	20	
Naphthalene	1	0.025	0.0	0.0257	103	0.0275	110	58 - 135		6.75	25.5	
n-Butylbenzene	1	0.025	0.0	0.0292	117	0.0290	116	62.7 - 140		0.45	20.3	
n-Propylbenzene	1	0.025	0.0	0.0270	108	0.0262	105	65.9 - 131		3.03	20	
o-Xylene	1	0.025	0.0	0.0261	105	0.0253	101	63.3 - 130		3.12	20	
p-Isopropyltoluene	1	0.025	0.0	0.0281	112	0.0276	110	63.2 - 139		1.86	20.4	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754786**
 Analysis Date: 11/18/2014 2:21:00 PM Analyst: 644
 Instrument ID: VOCMS2
 Sample Numbers: L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20

Matrix Spike / Matrix Spike Duplicate

L733743-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
sec-Butylbenzene	1	0.025	0.0	0.0278	111	0.0271	108	62.2 - 136		2.63	20.3	
Styrene	1	0.025	0.0	0.0271	108	0.0260	104	66.8 - 133		3.96	20	
Tetrachloroethene	1	0.025	0.0	0.0254	102	0.0236	94.5	53 - 139		7.22	20	
Toluene	1	0.025	0.0	0.0258	103	0.0248	99.3	61.4 - 130		3.94	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0291	117	0.0271	108	56.5 - 129		7.44	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0294	118	0.0278	111	64.1 - 128		5.55	20	
Trichloroethene	1	0.025	0.0	0.0256	102	0.0247	98.9	44.1 - 149		3.41	20	
Vinyl chloride	1	0.025	0.0	0.0300	120	0.0276	110	47.8 - 137		8.47	20	
Xylenes, Total	1	0.075	0.0	0.0784	104	0.0752	100	63.3 - 131		4.16	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Matrix Spike / Matrix Spike Duplicate

L733630-02

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0255	102	0.0260	104	64 - 128		1.89	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0239	95.4	0.0255	102	58.7 - 134		6.74	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0280	112	0.0272	109	56 - 132		3.16	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0265	106	0.0269	108	66.3 - 125		1.32	20	
1,1-Dichloroethane	1	0.025	0.0	0.0259	104	0.0262	105	58.5 - 132		1.4	20	
1,1-Dichloroethene	1	0.025	0.0	0.0281	112	0.0278	111	51.1 - 140		1.04	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0245	97.8	0.0255	102	57.4 - 137		4.22	20	
1,2-Dibromoethane	1	0.025	0.0	0.0261	104	0.0268	107	67.1 - 125		2.44	20	
1,2-Dichloroethane	1	0.025	0.0	0.0276	110	0.0278	111	60 - 126		0.72	20	
1,2-Dichloropropane	1	0.025	0.0	0.0266	107	0.0266	106	64.2 - 123		0.14	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0244	97.7	0.0254	102	63.6 - 132		3.9	20.5	
2-Butanone (MEK)	1	0.125	0.0	0.1458	117	0.1376	110	22.4 - 138		5.76	27	
2-Hexanone	1	0.125	0.0	0.1408	113	0.1370	110	43.3 - 137		2.79	25.5	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1434	115	0.1375	110	60.8 - 140		4.25	25.1	
Acetone	1	0.125	0.0016	0.1078	84.9	0.0946	74.4	10 - 130		13	27.9	
Benzene	1	0.025	0.0	0.0243	97.2	0.0251	100	54.3 - 133		3.27	20	
Bromodichloromethane	1	0.025	0.0	0.0283	113	0.0283	113	63.9 - 121		0.19	20	
Bromoform	1	0.025	0.0	0.0262	105	0.0261	104	59.5 - 134		0.44	20.5	
Bromomethane	1	0.025	0.0	0.0245	97.9	0.0232	92.7	41.7 - 155		5.46	21.9	
Carbon disulfide	1	0.025	0.0	0.0238	95.2	0.0241	96.4	43.3 - 149		1.26	20.3	
Carbon tetrachloride	1	0.025	0.0	0.0251	100	0.0258	103	55.7 - 134		2.55	20	
Chlorobenzene	1	0.025	0.0	0.0252	101	0.0263	105	67 - 125		4.48	20	
Chlorodibromomethane	1	0.025	0.0	0.0252	101	0.0256	103	64.3 - 125		1.63	20.8	
Chloroethane	1	0.025	0.0	0.0230	92	0.0217	86.6	51.5 - 136		6.02	40	
Chloroform	1	0.025	0.0	0.0278	111	0.0281	112	63 - 129		0.98	20	
Chloromethane	1	0.025	0.0	0.0213	85.2	0.0210	83.9	42.4 - 135		1.5	20	
cis-1,2-Dichloroethene	1	0.025	0.0047	0.0304	103	0.0307	104	59.2 - 129		1.17	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0276	110	0.0271	108	66.4 - 125		1.72	20	
Ethylbenzene	1	0.025	0.0	0.0244	97.6	0.0257	103	61.4 - 133		5.29	20	
Isopropylbenzene	1	0.025	0.0	0.0246	98.5	0.0258	103	66.8 - 141		4.58	20	
m&p-Xylenes	1	0.05	0.0	0.0483	96.7	0.0507	101	61.7 - 133		4.88	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0273	109	0.0271	108	57.7 - 134		0.62	20	
Methylene Chloride	1	0.025	0.0	0.0231	92.2	0.0230	91.9	58.1 - 122		0.39	20	
Naphthalene	1	0.025	0.0	0.0276	110	0.0287	115	58 - 135		3.93	25.5	
n-Butylbenzene	1	0.025	0.0	0.0276	110	0.0291	117	62.7 - 140		5.53	20.3	
n-Propylbenzene	1	0.025	0.0	0.0243	97.3	0.0255	102	65.9 - 131		4.83	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Matrix Spike / Matrix Spike Duplicate

L733630-02

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
o-Xylene	1	0.025	0.0	0.0239	95.4	0.0245	97.9	63.3 - 130		2.56	20	
p-Isopropyltoluene	1	0.025	0.0	0.0249	99.8	0.0261	104	63.2 - 139		4.49	20.4	
sec-Butylbenzene	1	0.025	0.0	0.0246	98.2	0.0256	102	62.2 - 136		4.21	20.3	
Styrene	1	0.025	0.0	0.0257	103	0.0268	107	66.8 - 133		4.05	20	
Tetrachloroethene	1	0.025	0.5987	0.5155	0	0.5157	0	53 - 139	V	0.05	20	
Toluene	1	0.025	0.0	0.0243	97.3	0.0248	99.3	61.4 - 130		2.08	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0253	101	0.0254	102	56.5 - 129		0.51	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0320	128	0.0311	124	64.1 - 128		2.9	20	
Trichloroethene	1	0.025	0.0032	0.0266	93.9	0.0269	94.9	44.1 - 149		0.98	20	
Vinyl chloride	1	0.025	0.0	0.0257	103	0.0250	99.8	47.8 - 137		2.79	20	
Xylenes, Total	1	0.075	0.0	0.0722	96.3	0.0752	100	63.3 - 131		4.12	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG754909
Analysis Date: 11/21/2014 11:52:00 AM Analyst: 644
Instrument ID: VOCMS20
Sample Numbers: L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44

Matrix Spike / Matrix Spike Duplicate

L733743-25

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1,1,1,2-Tetrachloroethane	1	0.025	<0.0004	0.0236	94.5	0.0278	111	64 - 128	16.1	20	
1,1,1-Trichloroethane	1	0.025	<0.0003	0.0222	88.6	0.0234	93.6	58.7 - 134	5.48	20	
1,1,2,2-Tetrachloroethane	1	0.025	<0.0001	0.0281	113	0.0321	128	56 - 132	13.1	22.2	
1,1,2-Trichloroethane	1	0.025	<0.0004	0.0246	98.4	0.0274	110	66.3 - 125	11	20	
1,1-Dichloroethane	1	0.025	<0.0003	0.0241	96.2	0.0249	99.6	58.5 - 132	3.45	20	
1,1-Dichloroethene	1	0.025	<0.0004	0.0209	83.7	0.0222	88.8	51.1 - 140	5.94	20.2	
1,2,4-Trimethylbenzene	1	0.025	<0.0004	0.0245	97.9	0.0271	109	57.4 - 137	10.3	20	
1,2-Dibromoethane	1	0.025	<0.0004	0.0250	100	0.0288	115	67.1 - 125	14.3	20	
1,2-Dichloroethane	1	0.025	<0.0004	0.0215	86.2	0.0223	89.1	60 - 126	3.32	20	
1,2-Dichloropropane	1	0.025	<0.0003	0.0260	104	0.0279	112	64.2 - 123	7.03	20	
1,3,5-Trimethylbenzene	1	0.025	<0.0004	0.0244	97.7	0.0272	109	63.6 - 132	10.8	20.5	
2-Butanone (MEK)	1	0.125	<0.0039	0.1449	116	0.1542	123	22.4 - 138	6.2	27	
2-Hexanone	1	0.125	<0.0038	0.1544	123	0.1817	145	43.3 - 137	J5	16.3	25.5
4-Methyl-2-pentanone (MIBK)	1	0.125	<0.0021	0.1642	131	0.1789	143	60.8 - 140	J5	8.58	25.1
Acetone	1	0.125	<0.01	0.1122	87.5	0.1169	91.3	10 - 130	4.1	27.9	
Benzene	1	0.025	<0.0003	0.0232	92.7	0.0243	97.2	54.3 - 133	4.69	20	
Bromodichloromethane	1	0.025	<0.0004	0.0233	93.2	0.0246	98.2	63.9 - 121	5.24	20	
Bromoform	1	0.025	<0.0005	0.0281	112	0.0330	132	59.5 - 134	15.9	20.5	
Bromomethane	1	0.025	<0.0009	0.0360	144	0.0383	153	41.7 - 155	6.31	21.9	
Carbon disulfide	1	0.025	<0.0003	0.0194	77.7	0.0202	80.9	43.3 - 149	4.08	20.3	
Carbon tetrachloride	1	0.025	<0.0004	0.0227	90.9	0.0248	99.4	55.7 - 134	8.91	20	
Chlorobenzene	1	0.025	<0.0003	0.0237	94.6	0.0273	109	67 - 125	14.2	20	
Chlorodibromomethane	1	0.025	<0.0003	0.0245	97.9	0.0284	114	64.3 - 125	15	20.8	
Chloroethane	1	0.025	<0.0005	0.0219	87.6	0.0215	86.2	51.5 - 136	1.68	40	
Chloroform	1	0.025	<0.0003	0.0227	90.8	0.0234	93.7	63 - 129	3.17	20	
Chloromethane	1	0.025	<0.0003	0.0233	93.3	0.0239	95.7	42.4 - 135	2.48	20	
cis-1,2-Dichloroethene	1	0.025	<0.0003	0.0235	93.9	0.0256	102	59.2 - 129	8.59	20	
cis-1,3-Dichloropropene	1	0.025	<0.0004	0.0263	105	0.0284	113	66.4 - 125	7.69	20	
Ethylbenzene	1	0.025	<0.0004	0.0245	98.1	0.0275	110	61.4 - 133	11.4	20	
Isopropylbenzene	1	0.025	<0.0003	0.0253	101	0.0284	114	66.8 - 141	11.8	20	
m&p-Xylenes	1	0.05	<0.0007	0.0499	99.8	0.0563	113	61.7 - 133	12	20	
Methyl tert-butyl ether	1	0.025	<0.0004	0.0245	98	0.0257	103	57.7 - 134	4.65	20	
Methylene Chloride	1	0.025	<0.001	0.0211	84.6	0.0217	86.9	58.1 - 122	2.68	20	
Naphthalene	1	0.025	<0.001	0.0294	118	0.0318	127	58 - 135	7.82	25.5	
n-Butylbenzene	1	0.025	<0.0004	0.0255	102	0.0274	110	62.7 - 140	7.44	20.3	
n-Propylbenzene	1	0.025	<0.0003	0.0246	98.2	0.0278	111	65.9 - 131	12.2	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754909**
 Analysis Date: 11/21/2014 11:52:00 AM Analyst: 644
 Instrument ID: VOCMS20
 Sample Numbers: L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44

Matrix Spike / Matrix Spike Duplicate

L733743-25

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
o-Xylene	1	0.025	<0.0003	0.0239	95.7	0.0272	109	63.3 - 130		12.6	20	
p-Isopropyltoluene	1	0.025	<0.0004	0.0274	110	0.0308	123	63.2 - 139		11.6	20.4	
sec-Butylbenzene	1	0.025	<0.0004	0.0264	106	0.0301	120	62.2 - 136		13.1	20.3	
Styrene	1	0.025	<0.0003	0.0242	96.8	0.0263	105	66.8 - 133		8.14	20	
Tetrachloroethene	1	0.025	<0.0004	0.0265	106	0.0297	119	53 - 139		11.3	20	
Toluene	1	0.025	<0.0008	0.0245	98	0.0263	105	61.4 - 130		6.92	20	
trans-1,2-Dichloroethene	1	0.025	<0.0004	0.0242	96.9	0.0248	99.1	56.5 - 129		2.27	20	
trans-1,3-Dichloropropene	1	0.025	<0.0004	0.0280	112	0.0302	121	64.1 - 128		7.42	20	
Trichloroethene	1	0.025	<0.0004	0.0230	92.1	0.0247	98.9	44.1 - 149		7.12	20	
Vinyl chloride	1	0.025	<0.0003	0.0230	92	0.0233	93.3	47.8 - 137		1.45	20	
Xylenes, Total	1	0.075	<0.0011	0.0738	98.4	0.0834	111	63.3 - 131		12.2	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754914**
 Analysis Date: 11/17/2014 2:20:00 AM Analyst: 644
 Instrument ID: VOCMS14
 Sample Numbers: L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65

Matrix Spike / Matrix Spike Duplicate

L733743-45

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0246	98.4	0.0270	108	64 - 128		9.12	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0276	111	0.0302	121	58.7 - 134		8.71	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0288	115	0.0321	129	56 - 132		11	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0250	100	0.0287	115	66.3 - 125		13.8	20	
1,1-Dichloroethane	1	0.025	0.0	0.0265	106	0.0283	113	58.5 - 132		6.83	20	
1,1-Dichloroethene	1	0.025	0.0	0.0236	94.5	0.0264	106	51.1 - 140		11.1	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0264	106	0.0307	123	57.4 - 137		15	20	
1,2-Dibromoethane	1	0.025	0.0	0.0287	115	0.0294	118	67.1 - 125		2.33	20	
1,2-Dichloroethane	1	0.025	0.0	0.0248	99.1	0.0264	106	60 - 126		6.32	20	
1,2-Dichloropropane	1	0.025	0.0	0.0272	109	0.0282	113	64.2 - 123		3.55	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0261	105	0.0304	122	63.6 - 132		15.1	20.5	
2-Butanone (MEK)	1	0.125	0.0	0.1303	104	0.1532	123	22.4 - 138		16.2	27	
2-Hexanone	1	0.125	0.0	0.1426	114	0.1514	121	43.3 - 137		5.97	25.5	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1545	124	0.1508	121	60.8 - 140		2.42	25.1	
Acetone	1	0.125	0.0099	0.1174	86	0.1212	89	10 - 130		3.22	27.9	
Benzene	1	0.025	0.0	0.0273	109	0.0292	117	54.3 - 133		6.74	20	
Bromodichloromethane	1	0.025	0.0	0.0227	90.8	0.0243	97.3	63.9 - 121		6.91	20	
Bromoform	1	0.025	0.0	0.0233	93.2	0.0246	98.6	59.5 - 134		5.67	20.5	
Bromomethane	1	0.025	0.0	0.0311	125	0.0372	149	41.7 - 155		17.7	21.9	
Carbon disulfide	1	0.025	0.0	0.0188	75.4	0.0205	82	43.3 - 149		8.36	20.3	
Carbon tetrachloride	1	0.025	0.0	0.0262	105	0.0306	122	55.7 - 134		15.5	20	
Chlorobenzene	1	0.025	0.0	0.0261	105	0.0293	117	67 - 125		11.5	20	
Chlorodibromomethane	1	0.025	0.0	0.0226	90.4	0.0248	99.1	64.3 - 125		9.23	20.8	
Chloroethane	1	0.025	0.0	0.0262	105	0.0327	131	51.5 - 136		21.9	40	
Chloroform	1	0.025	0.0	0.0278	111	0.0300	120	63 - 129		7.69	20	
Chloromethane	1	0.025	0.0	0.0265	106	0.0292	117	42.4 - 135		9.77	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0281	112	0.0305	122	59.2 - 129		8.05	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0250	100	0.0248	99.3	66.4 - 125		0.76	20	
Ethylbenzene	1	0.025	0.0	0.0259	103	0.0300	120	61.4 - 133		14.8	20	
Isopropylbenzene	1	0.025	0.0	0.0262	105	0.0300	120	66.8 - 141		13.5	20	
m&p-Xylenes	1	0.05	0.0	0.0512	102	0.0583	117	61.7 - 133		13	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0283	113	0.0302	121	57.7 - 134		6.3	20	
Methylene Chloride	1	0.025	0.0	0.0267	107	0.0292	117	58.1 - 122		9.04	20	
Naphthalene	1	0.025	0.0003	0.0276	109	0.0283	112	58 - 135		2.65	25.5	
n-Butylbenzene	1	0.025	0.0	0.0268	107	0.0290	116	62.7 - 140		7.71	20.3	
n-Propylbenzene	1	0.025	0.0	0.0259	103	0.0298	119	65.9 - 131		14.1	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754914**
 Analysis Date: 11/17/2014 2:20:00 AM Analyst: 644
 Instrument ID: VOCMS14
 Sample Numbers: L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65

Matrix Spike / Matrix Spike Duplicate

L733743-45

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
o-Xylene	1	0.025	0.0	0.0260	104	0.0301	120	63.3 - 130		14.6	20	
p-Isopropyltoluene	1	0.025	0.0	0.0275	110	0.0317	127	63.2 - 139		14.2	20.4	
sec-Butylbenzene	1	0.025	0.0	0.0265	106	0.0309	123	62.2 - 136		15.3	20.3	
Styrene	1	0.025	0.0	0.0263	105	0.0300	120	66.8 - 133		13	20	
Tetrachloroethene	1	0.025	0.0	0.0223	89.3	0.0270	108	53 - 139		18.8	20	
Toluene	1	0.025	0.0	0.0261	104	0.0272	109	61.4 - 130		4.45	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0264	105	0.0284	114	56.5 - 129		7.52	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0227	90.7	0.0239	95.8	64.1 - 128		5.4	20	
Trichloroethene	1	0.025	0.0	0.0250	99.9	0.0253	101	44.1 - 149		1.33	20	
Vinyl chloride	1	0.025	0.0	0.0275	110	0.0300	120	47.8 - 137		8.75	20	
Xylenes, Total	1	0.075	0.0	0.0772	103	0.0884	118	63.3 - 131		13.5	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG754915
Analysis Date: 11/19/2014 3:01:00 PM Analyst: 611
Instrument ID: VOCMS25
Sample Numbers: L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86

Matrix Spike / Matrix Spike Duplicate

L733743-67

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0311	124	0.0282	113	64 - 128		9.56	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0303	121	0.0255	102	58.7 - 134		17.2	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0307	123	0.0286	114	56 - 132		6.93	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0294	118	0.0272	109	66.3 - 125		7.68	20	
1,1-Dichloroethane	1	0.025	0.0	0.0271	108	0.0229	91.7	58.5 - 132		16.6	20	
1,1-Dichloroethene	1	0.025	0.0	0.0277	111	0.0223	89.4	51.1 - 140		21.5	20.2	J3
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0292	117	0.0255	102	57.4 - 137		13.5	20	
1,2-Dibromoethane	1	0.025	0.0	0.0306	122	0.0286	114	67.1 - 125		6.79	20	
1,2-Dichloroethane	1	0.025	0.0	0.0275	110	0.0245	98	60 - 126		11.4	20	
1,2-Dichloropropane	1	0.025	0.0	0.0265	106	0.0235	94	64.2 - 123		12	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0290	116	0.0261	104	63.6 - 132		10.6	20.5	
2-Butanone (MEK)	1	0.125	0.0	0.1343	107	0.1186	94.9	22.4 - 138		12.4	27	
2-Hexanone	1	0.125	0.0	0.1547	124	0.1469	118	43.3 - 137		5.2	25.5	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1498	120	0.1336	107	60.8 - 140		11.4	25.1	
Acetone	1	0.125	0.0027	0.1121	87.6	0.0941	73.1	10 - 130		17.5	27.9	
Benzene	1	0.025	0.0	0.0270	108	0.0231	92.6	54.3 - 133		15.5	20	
Bromodichloromethane	1	0.025	0.0	0.0276	110	0.0247	98.8	63.9 - 121		11	20	
Bromoform	1	0.025	0.0	0.0342	137	0.0316	126	59.5 - 134	J5	7.87	20.5	
Bromomethane	1	0.025	0.0	0.0372	149	0.0328	131	41.7 - 155		12.7	21.9	
Carbon disulfide	1	0.025	0.0	0.0255	102	0.0205	81.9	43.3 - 149		22	20.3	J3
Carbon tetrachloride	1	0.025	0.0	0.0312	125	0.0263	105	55.7 - 134		17.3	20	
Chlorobenzene	1	0.025	0.0	0.0300	120	0.0263	105	67 - 125		13	20	
Chlorodibromomethane	1	0.025	0.0	0.0320	128	0.0296	118	64.3 - 125	J5	7.98	20.8	
Chloroethane	1	0.025	0.0	0.0341	136	0.0305	122	51.5 - 136		11.1	40	
Chloroform	1	0.025	0.0	0.0286	115	0.0242	97	63 - 129		16.6	20	
Chloromethane	1	0.025	0.0	0.0219	87.5	0.0186	74.4	42.4 - 135		16.2	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0281	112	0.0241	96.4	59.2 - 129		15.4	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0280	112	0.0247	98.6	66.4 - 125		12.9	20	
Ethylbenzene	1	0.025	0.0	0.0298	119	0.0262	105	61.4 - 133		12.9	20	
Isopropylbenzene	1	0.025	0.0	0.0316	126	0.0273	109	66.8 - 141		14.4	20	
m&p-Xylenes	1	0.05	0.0	0.0583	117	0.0526	105	61.7 - 133		10.3	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0276	110	0.0248	99	57.7 - 134		10.8	20	
Methylene Chloride	1	0.025	0.0	0.0273	109	0.0237	94.7	58.1 - 122		14.3	20	
Naphthalene	1	0.025	0.0	0.0271	109	0.0255	102	58 - 135		6.31	25.5	
n-Butylbenzene	1	0.025	0.0	0.0288	115	0.0245	98.1	62.7 - 140		16.1	20.3	
n-Propylbenzene	1	0.025	0.0	0.0304	121	0.0266	106	65.9 - 131		13.4	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754915
 Analysis Date: 11/19/2014 3:01:00 PM Analyst: 611
 Instrument ID: VOCMS25
 Sample Numbers: L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86

Matrix Spike / Matrix Spike Duplicate

L733743-67

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
o-Xylene	1	0.025	0.0	0.0286	114	0.0257	103	63.3 - 130		10.6	20	
p-Isopropyltoluene	1	0.025	0.0	0.0332	133	0.0292	117	63.2 - 139		12.5	20.4	
sec-Butylbenzene	1	0.025	0.0	0.0326	130	0.0284	114	62.2 - 136		13.5	20.3	
Styrene	1	0.025	0.0	0.0296	118	0.0268	107	66.8 - 133		9.96	20	
Tetrachloroethene	1	0.025	0.0	0.0330	132	0.0293	117	53 - 139		11.9	20	
Toluene	1	0.025	0.0	0.0300	120	0.0258	103	61.4 - 130		15	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0273	109	0.0226	90.4	56.5 - 129		19	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0296	119	0.0272	109	64.1 - 128		8.6	20	
Trichloroethene	1	0.025	0.0	0.0305	122	0.0259	104	44.1 - 149		16.3	20	
Vinyl chloride	1	0.025	0.0	0.0248	99.1	0.0199	79.7	47.8 - 137		21.8	20	J3
Xylenes, Total	1	0.075	0.0	0.0869	116	0.0783	104	63.3 - 131		10.4	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754916
 Analysis Date: 11/22/2014 3:10:00 AM Analyst: 644
 Instrument ID: VOCMS7
 Sample Numbers: L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105

Matrix Spike / Matrix Spike Duplicate

L733743-99

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0230	92.1	0.0207	82.8	64 - 128		10.6	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0199	79.8	0.0175	70	58.7 - 134		13	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0230	92	0.0206	82.5	56 - 132		10.9	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0231	92.3	0.0204	81.5	66.3 - 125		12.4	20	
1,1-Dichloroethane	1	0.025	0.0	0.0196	78.4	0.0174	69.7	58.5 - 132		11.8	20	
1,1-Dichloroethene	1	0.025	0.0	0.0185	74.1	0.0164	65.5	51.1 - 140		12.3	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0214	85.8	0.0190	76	57.4 - 137		12.1	20	
1,2-Dibromoethane	1	0.025	0.0	0.0237	94.7	0.0210	84	67.1 - 125		12	20	
1,2-Dichloroethane	1	0.025	0.0	0.0191	76.5	0.0170	68.2	60 - 126		11.5	20	
1,2-Dichloropropane	1	0.025	0.0	0.0217	86.9	0.0188	75	64.2 - 123		14.7	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0215	86	0.0193	77.3	63.6 - 132		10.7	20.5	
2-Butanone (MEK)	1	0.125	0.0	0.1015	81.2	0.0958	76.7	22.4 - 138		5.77	27	
2-Hexanone	1	0.125	0.0	0.1141	91.3	0.1037	83	43.3 - 137		9.53	25.5	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1121	89.7	0.0992	79.3	60.8 - 140		12.2	25.1	
Acetone	1	0.125	0.0016	0.0927	72.8	0.0840	65.9	10 - 130		9.84	27.9	
Benzene	1	0.025	0.0	0.0192	76.9	0.0169	67.8	54.3 - 133		12.7	20	
Bromodichloromethane	1	0.025	0.0	0.0212	84.9	0.0183	73	63.9 - 121		15	20	
Bromoform	1	0.025	0.0	0.0253	101	0.0224	89.5	59.5 - 134		12.2	20.5	
Bromomethane	1	0.025	0.0004	0.0205	80.7	0.0164	64	41.7 - 155		22.6	21.9	J3
Carbon disulfide	1	0.025	0.0003	0.0167	65.5	0.0148	58	43.3 - 149		11.8	20.3	
Carbon tetrachloride	1	0.025	0.0	0.0198	79.2	0.0198	79.2	55.7 - 134		0.05	20	
Chlorobenzene	1	0.025	0.0	0.0223	89.1	0.0196	78.2	67 - 125		13	20	
Chlorodibromomethane	1	0.025	0.0	0.0238	95.1	0.0206	82.3	64.3 - 125		14.4	20.8	
Chloroethane	1	0.025	0.0	0.0198	79.2	0.0173	69.2	51.5 - 136		13.5	40	
Chloroform	1	0.025	0.0	0.0200	80.2	0.0172	68.9	63 - 129		15.1	20	
Chloromethane	1	0.025	0.0	0.0180	72.1	0.0158	63.2	42.4 - 135		13.2	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0205	81.9	0.0181	72.3	59.2 - 129		12.5	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0214	85.7	0.0183	73.2	66.4 - 125		15.8	20	
Ethylbenzene	1	0.025	0.0	0.0216	86.3	0.0193	77.3	61.4 - 133		11.1	20	
Isopropylbenzene	1	0.025	0.0020	0.0239	87.7	0.0214	77.7	66.8 - 141		11.1	20	
m&p-Xylenes	1	0.05	0.0	0.0411	82.1	0.0367	73.5	61.7 - 133		11.1	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0199	79.5	0.0177	70.6	57.7 - 134		11.8	20	
Methylene Chloride	1	0.025	0.0	0.0179	71.7	0.0160	64	58.1 - 122		11.2	20	
Naphthalene	1	0.025	0.0004	0.0219	86	0.0198	77.6	58 - 135		10	25.5	
n-Butylbenzene	1	0.025	0.0	0.0204	81.7	0.0184	73.5	62.7 - 140		10.6	20.3	
n-Propylbenzene	1	0.025	0.0	0.0214	85.6	0.0192	76.7	65.9 - 131		10.9	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754916**
 Analysis Date: 11/22/2014 3:10:00 AM Analyst: 644
 Instrument ID: VOCMS7
 Sample Numbers: L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105

Matrix Spike / Matrix Spike Duplicate

L733743-99

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
o-Xylene	1	0.025	0.0	0.0210	84.1	0.0186	74.3	63.3 - 130		12.3	20	
p-Isopropyltoluene	1	0.025	0.0022	0.0226	81.5	0.0203	72.3	63.2 - 139		10.7	20.4	
sec-Butylbenzene	1	0.025	0.0007	0.0229	88.5	0.0205	79.1	62.2 - 136		10.9	20.3	
Styrene	1	0.025	0.0	0.0219	87.6	0.0194	77.5	66.8 - 133		12.2	20	
Tetrachloroethene	1	0.025	0.0	0.0229	91.6	0.0211	84.5	53 - 139		8.04	20	
Toluene	1	0.025	0.0	0.0201	80.3	0.0175	70.2	61.4 - 130		13.5	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0199	79.7	0.0180	72.2	56.5 - 129		9.94	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0238	95.1	0.0203	81.2	64.1 - 128		15.8	20	
Trichloroethene	1	0.025	0.0	0.0215	85.9	0.0187	75	44.1 - 149		13.6	20	
Vinyl chloride	1	0.025	0.0	0.0198	79.4	0.0174	69.7	47.8 - 137		13	20	
Xylenes, Total	1	0.075	0.0	0.0621	82.8	0.0553	73.8	63.3 - 131		11.5	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B

Project No: TX000836.0008.00004

Matrix: Water - mg/L

Project: Navajo Refining Company - Artesia, NM

EPA ID: TN00003

Collection Date: 11/11/2014

Analytic Batch: WG754917

Analysis Date: 11/19/2014 3:06:00 PM

Analyst: 644

Instrument ID: VOCMS30

Sample Numbers: L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125

Matrix Spike / Matrix Spike Duplicate

L733743-115

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0250	99.8	0.0342	137	64 - 128	J5	31.3	20	J3
1,1,1-Trichloroethane	1	0.025	0.0	0.0240	96	0.0290	116	58.7 - 134		19	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0268	107	0.0382	153	56 - 132	J5	34.9	22.2	J3
1,1,2-Trichloroethane	1	0.025	0.0	0.0285	114	0.0380	152	66.3 - 125	J5	28.4	20	J3
1,1-Dichloroethane	1	0.025	0.0	0.0250	99.8	0.0311	124	58.5 - 132		21.9	20	J3
1,1-Dichloroethene	1	0.025	0.0	0.0229	91.8	0.0266	106	51.1 - 140		14.8	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0006	0.0250	97.6	0.0332	130	57.4 - 137		28.2	20	J3
1,2-Dibromoethane	1	0.025	0.0	0.0260	104	0.0355	142	67.1 - 125	J5	31	20	J3
1,2-Dichloroethane	1	0.025	0.0	0.0203	81	0.0277	111	60 - 126		31.2	20	J3
1,2-Dichloropropane	1	0.025	0.0	0.0261	104	0.0351	140	64.2 - 123	J5	29.3	20	J3
1,3,5-Trimethylbenzene	1	0.025	0.0004	0.0255	101	0.0339	134	63.6 - 132	J5	28.2	20.5	J3
2-Butanone (MEK)	1	0.125	0.0011	0.1413	112	0.1848	147	22.4 - 138	J5	26.7	27	
2-Hexanone	1	0.125	0.0	0.1566	125	0.2186	175	43.3 - 137	J5	33	25.5	J3
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0005	0.1437	115	0.2035	162	60.8 - 140	J5	34.4	25.1	J3
Acetone	1	0.125	0.0	0.1335	107	0.1585	127	10 - 130		17.2	27.9	
Benzene	1	0.025	0.2640	0.2327	0	0.2368	0	54.3 - 133	V	1.75	20	
Bromodichloromethane	1	0.025	0.0	0.0242	96.9	0.0327	131	63.9 - 121	J5	29.8	20	J3
Bromoform	1	0.025	0.0	0.0257	103	0.0354	142	59.5 - 134	J5	31.5	20.5	J3
Bromomethane	1	0.025	0.0	0.0179	71.6	0.0263	105	41.7 - 155		38	21.9	J3
Carbon disulfide	1	0.025	0.0005	0.0205	80	0.0229	89.3	43.3 - 149		10.7	20.3	
Carbon tetrachloride	1	0.025	0.0	0.0230	92	0.0286	114	55.7 - 134		21.7	20	J3
Chlorobenzene	1	0.025	0.0	0.0244	97.6	0.0326	130	67 - 125	J5	28.7	20	J3
Chlorodibromomethane	1	0.025	0.0	0.0266	106	0.0360	144	64.3 - 125	J5	30	20.8	J3
Chloroethane	1	0.025	0.0	0.0122	48.8	0.0142	56.9	51.5 - 136	J6	15.3	40	
Chloroform	1	0.025	0.0	0.0250	100	0.0332	133	63 - 129	J5	28.1	20	J3
Chloromethane	1	0.025	0.0010	0.0229	87.4	0.0249	95.6	42.4 - 135		8.55	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0242	96.9	0.0307	123	59.2 - 129		23.4	20	J3
cis-1,3-Dichloropropene	1	0.025	0.0003	0.0261	103	0.0350	139	66.4 - 125	J5	29.2	20	J3
Ethylbenzene	1	0.025	0.0200	0.0414	85.8	0.0483	113	61.4 - 133		15.4	20	
Isopropylbenzene	1	0.025	0.0275	0.0480	81.7	0.0552	110	66.8 - 141		14	20	
m&p-Xylenes	1	0.05	0.0027	0.0509	96.3	0.0659	126	61.7 - 133		25.7	20	J3
Methyl tert-butyl ether	1	0.025	0.0	0.0254	102	0.0332	133	57.7 - 134		26.5	20	J3
Methylene Chloride	1	0.025	0.0	0.0234	93.7	0.0285	114	58.1 - 122		19.5	20	
Naphthalene	1	0.025	0.0026	0.0350	129	0.0477	180	58 - 135	J5	30.8	25.5	J3
n-Butylbenzene	1	0.025	0.0013	0.0294	113	0.0378	146	62.7 - 140	J5	24.9	20.3	J3
n-Propylbenzene	1	0.025	0.0212	0.0430	87.4	0.0501	116	65.9 - 131		15.2	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754917
 Analysis Date: 11/19/2014 3:06:00 PM Analyst: 644
 Instrument ID: VOCMS30
 Sample Numbers: L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125

Matrix Spike / Matrix Spike Duplicate

L733743-115

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
o-Xylene	1	0.025	0.0004	0.0273	108	0.0361	143	63.3 - 130	J5	28	20	J3
p-Isopropyltoluene	1	0.025	0.0	0.0246	98.4	0.0328	131	63.2 - 139		28.4	20.4	J3
sec-Butylbenzene	1	0.025	0.0033	0.0274	96.1	0.0359	130	62.2 - 136		26.8	20.3	J3
Styrene	1	0.025	0.0	0.0260	104	0.0350	140	66.8 - 133	J5	29.6	20	J3
Tetrachloroethene	1	0.025	0.0	0.0224	89.4	0.0297	119	53 - 139		28.2	20	J3
Toluene	1	0.025	0.0057	0.0274	86.9	0.0343	114	61.4 - 130		22.4	20	J3
trans-1,2-Dichloroethene	1	0.025	0.0	0.0236	94.5	0.0281	112	56.5 - 129		17.1	20	J3
trans-1,3-Dichloropropene	1	0.025	0.0	0.0272	109	0.0370	148	64.1 - 128	J5	30.4	20	J3
Trichloroethene	1	0.025	0.0	0.0235	94	0.0306	122	44.1 - 149		26.2	20	J3
Vinyl chloride	1	0.025	0.0	0.0206	82.5	0.0225	90.1	47.8 - 137		8.77	20	J3
Xylenes, Total	1	0.075	0.0031	0.0781	100	0.1020	132	63.3 - 131	J5	26.5	20	J3

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754918
 Analysis Date: 11/20/2014 5:53:00 AM Analyst: 644
 Instrument ID: VOCMS2
 Sample Numbers: L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141

Matrix Spike / Matrix Spike Duplicate

L733743-126

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0214	85.6	0.0239	95.7	64 - 128		11.1	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0226	90.3	0.0253	101	58.7 - 134		11.2	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0211	84.5	0.0242	96.9	56 - 132		13.6	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0226	90.5	0.0259	104	66.3 - 125		13.4	20	
1,1-Dichloroethane	1	0.025	0.0	0.0228	91.2	0.0254	102	58.5 - 132		10.7	20	
1,1-Dichloroethene	1	0.025	0.0	0.0241	96.3	0.0264	105	51.1 - 140		9.13	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0213	85.3	0.0239	95.8	57.4 - 137		11.5	20	
1,2-Dibromoethane	1	0.025	0.0	0.0209	83.5	0.0234	93.7	67.1 - 125		11.5	20	
1,2-Dichloroethane	1	0.025	0.0	0.0217	86.9	0.0247	98.9	60 - 126		12.9	20	
1,2-Dichloropropane	1	0.025	0.0	0.0227	90.9	0.0252	101	64.2 - 123		10.2	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0213	85.3	0.0238	95.2	63.6 - 132		11	20.5	
2-Butanone (MEK)	1	0.125	0.0	0.1270	102	0.1442	115	22.4 - 138		12.7	27	
2-Hexanone	1	0.125	0.0	0.0999	79.9	0.1160	92.8	43.3 - 137		14.9	25.5	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1093	87.4	0.1246	99.7	60.8 - 140		13.1	25.1	
Acetone	1	0.125	0.0026	0.0834	64.6	0.0938	73	10 - 130		11.8	27.9	
Benzene	1	0.025	0.0003	0.0209	82.5	0.0234	92.4	54.3 - 133		11.1	20	
Bromodichloromethane	1	0.025	0.0	0.0234	93.5	0.0257	103	63.9 - 121		9.54	20	
Bromoform	1	0.025	0.0	0.0200	80.1	0.0225	89.9	59.5 - 134		11.6	20.5	
Bromomethane	1	0.025	0.0	0.0224	89.5	0.0240	96	41.7 - 155		7.06	21.9	
Carbon disulfide	1	0.025	0.0	0.0225	90.2	0.0247	98.8	43.3 - 149		9.14	20.3	
Carbon tetrachloride	1	0.025	0.0	0.0226	90.5	0.0251	100	55.7 - 134		10.3	20	
Chlorobenzene	1	0.025	0.0	0.0216	86.4	0.0241	96.4	67 - 125		10.9	20	
Chlorodibromomethane	1	0.025	0.0	0.0203	81.3	0.0230	91.9	64.3 - 125		12.2	20.8	
Chloroethane	1	0.025	0.0	0.0207	82.6	0.0222	88.6	51.5 - 136		6.99	40	
Chloroform	1	0.025	0.0	0.0233	93.4	0.0258	103	63 - 129		10.1	20	
Chloromethane	1	0.025	0.0	0.0198	79.1	0.0215	85.9	42.4 - 135		8.32	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0214	85.8	0.0237	94.7	59.2 - 129		9.86	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0232	92.9	0.0254	101	66.4 - 125		8.78	20	
Ethylbenzene	1	0.025	0.0	0.0215	86.2	0.0234	93.7	61.4 - 133		8.38	20	
Isopropylbenzene	1	0.025	0.0160	0.0363	81.4	0.0404	97.5	66.8 - 141		10.5	20	
m&p-Xylenes	1	0.05	0.0	0.0427	85.4	0.0476	95.2	61.7 - 133		10.8	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0231	92.4	0.0262	105	57.7 - 134		12.5	20	
Methylene Chloride	1	0.025	0.0	0.0198	79.2	0.0219	87.6	58.1 - 122		10.1	20	
Naphthalene	1	0.025	0.0	0.0227	90.8	0.0264	106	58 - 135		15.2	25.5	
n-Butylbenzene	1	0.025	0.0	0.0247	98.9	0.0277	111	62.7 - 140		11.4	20.3	
n-Propylbenzene	1	0.025	0.0032	0.0244	84.8	0.0270	95.4	65.9 - 131		10.3	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754918**
 Analysis Date: 11/20/2014 5:53:00 AM Analyst: 644
 Instrument ID: VOCMS2
 Sample Numbers: L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141

Matrix Spike / Matrix Spike Duplicate

L733743-126

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
o-Xylene	1	0.025	0.0	0.0206	82.4	0.0231	92.4	63.3 - 130		11.4	20	
p-Isopropyltoluene	1	0.025	0.0	0.0216	86.6	0.0244	97.6	63.2 - 139		11.9	20.4	
sec-Butylbenzene	1	0.025	0.0031	0.0245	85.9	0.0275	97.6	62.2 - 136		11.3	20.3	
Styrene	1	0.025	0.0	0.0215	85.9	0.0242	97	66.8 - 133		12.1	20	
Tetrachloroethene	1	0.025	0.0	0.0208	83.3	0.0232	92.7	53 - 139		10.6	20	
Toluene	1	0.025	0.0	0.0213	85.1	0.0232	92.7	61.4 - 130		8.5	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0222	88.7	0.0241	96.4	56.5 - 129		8.33	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0258	103	0.0277	111	64.1 - 128		7.23	20	
Trichloroethene	1	0.025	0.0	0.0203	81.4	0.0225	89.8	44.1 - 149		9.91	20	
Vinyl chloride	1	0.025	0.0	0.0229	91.4	0.0244	97.6	47.8 - 137		6.49	20	
Xylenes, Total	1	0.075	0.0	0.0633	84.4	0.0707	94.3	63.3 - 131		11	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG754919
Analysis Date: 11/21/2014 10:42:00 PM Analyst: 644
Instrument ID: VOCMS13
Sample Numbers: L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162

Matrix Spike / Matrix Spike Duplicate

L733743-156

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0233	93.1	0.0237	95	64 - 128		1.96	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0218	87	0.0233	93.3	58.7 - 134		6.9	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0256	102	0.0242	96.8	56 - 132		5.49	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0233	93.1	0.0230	92	66.3 - 125		1.2	20	
1,1-Dichloroethane	1	0.025	0.0	0.0226	90.4	0.0226	90.5	58.5 - 132		0.18	20	
1,1-Dichloroethene	1	0.025	0.0	0.0204	81.8	0.0215	85.8	51.1 - 140		4.83	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0222	88.7	0.0236	94.5	57.4 - 137		6.41	20	
1,2-Dibromoethane	1	0.025	0.0	0.0255	102	0.0242	96.6	67.1 - 125		5.32	20	
1,2-Dichloroethane	1	0.025	0.0	0.0253	101	0.0235	93.9	60 - 126		7.6	20	
1,2-Dichloropropane	1	0.025	0.0	0.0240	96	0.0229	91.5	64.2 - 123		4.8	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0225	90	0.0242	96.8	63.6 - 132		7.37	20.5	
2-Butanone (MEK)	1	0.125	0.0	0.1828	146	0.1538	123	22.4 - 138	J5	17.2	27	
2-Hexanone	1	0.125	0.0	0.1362	109	0.1221	97.7	43.3 - 137		10.9	25.5	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1449	116	0.1250	100	60.8 - 140		14.8	25.1	
Acetone	1	0.125	0.0098	0.1422	106	0.1207	88.8	10 - 130		16.4	27.9	
Benzene	1	0.025	0.0	0.0226	90.6	0.0226	90.6	54.3 - 133		0	20	
Bromodichloromethane	1	0.025	0.0	0.0242	96.8	0.0232	92.7	63.9 - 121		4.34	20	
Bromoform	1	0.025	0.0	0.0285	114	0.0258	103	59.5 - 134		10.1	20.5	
Bromomethane	1	0.025	0.0	0.0228	91.2	0.0223	89.2	41.7 - 155		2.18	21.9	
Carbon disulfide	1	0.025	0.0	0.0170	68	0.0177	70.9	43.3 - 149		4.22	20.3	
Carbon tetrachloride	1	0.025	0.0	0.0218	87	0.0232	92.8	55.7 - 134		6.47	20	
Chlorobenzene	1	0.025	0.0	0.0229	91.6	0.0242	96.7	67 - 125		5.42	20	
Chlorodibromomethane	1	0.025	0.0	0.0256	102	0.0254	102	64.3 - 125		0.64	20.8	
Chloroethane	1	0.025	0.0	0.0222	89	0.0238	95.4	51.5 - 136		6.91	40	
Chloroform	1	0.025	0.0	0.0225	90.2	0.0230	92.1	63 - 129		2.04	20	
Chloromethane	1	0.025	0.0	0.0191	76.6	0.0196	78.2	42.4 - 135		2.07	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0230	92.2	0.0222	88.8	59.2 - 129		3.7	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0252	101	0.0237	94.7	66.4 - 125		6.07	20	
Ethylbenzene	1	0.025	0.0	0.0215	85.9	0.0236	94.4	61.4 - 133		9.42	20	
Isopropylbenzene	1	0.025	0.0	0.0215	85.8	0.0234	93.6	66.8 - 141		8.71	20	
m&p-Xylenes	1	0.05	0.0	0.0436	87.1	0.0467	93.4	61.7 - 133		6.93	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0255	102	0.0231	92.6	57.7 - 134		9.53	20	
Methylene Chloride	1	0.025	0.0	0.0223	89.2	0.0218	87.2	58.1 - 122		2.23	20	
Naphthalene	1	0.025	0.0	0.0277	111	0.0252	101	58 - 135		9.2	25.5	
n-Butylbenzene	1	0.025	0.0	0.0222	88.7	0.0235	93.9	62.7 - 140		5.69	20.3	
n-Propylbenzene	1	0.025	0.0	0.0222	88.6	0.0242	96.8	65.9 - 131		8.82	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: **WG754919**
 Analysis Date: 11/21/2014 10:42:00 PM Analyst: 644
 Instrument ID: VOCMS13
 Sample Numbers: L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162

Matrix Spike / Matrix Spike Duplicate

L733743-156

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
o-Xylene	1	0.025	0.0	0.0218	87.4	0.0234	93.7	63.3 - 130		7.03	20	
p-Isopropyltoluene	1	0.025	0.0	0.0226	90.5	0.0249	99.7	63.2 - 139		9.57	20.4	
sec-Butylbenzene	1	0.025	0.0	0.0221	88.4	0.0244	97.7	62.2 - 136		9.94	20.3	
Styrene	1	0.025	0.0	0.0251	101	0.0256	102	66.8 - 133		1.63	20	
Tetrachloroethene	1	0.025	0.0	0.0211	84.4	0.0230	92.1	53 - 139		8.67	20	
Toluene	1	0.025	0.0	0.0224	89.4	0.0225	90.1	61.4 - 130		0.78	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0218	87.3	0.0229	91.7	56.5 - 129		4.96	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0266	106	0.0233	93.3	64.1 - 128		13	20	
Trichloroethene	1	0.025	0.0	0.0228	91.2	0.0236	94.3	44.1 - 149		3.36	20	
Vinyl chloride	1	0.025	0.0	0.0205	81.9	0.0213	85	47.8 - 137		3.71	20	
Xylenes, Total	1	0.075	0.0	0.0654	87.2	0.0701	93.5	63.3 - 131		6.97	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG755340
 Analysis Date: 11/22/2014 12:20:00 AM Analyst: 611
 Instrument ID: VOCMS25
 Sample Numbers: L733743-06, -07, -08, -09, -10, -11, -12

Matrix Spike / Matrix Spike Duplicate

L733584-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0286	114	0.0265	106	64 - 128		7.62	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0246	98.6	0.0214	85.7	58.7 - 134		13.9	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0278	111	0.0275	110	56 - 132		0.9	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0272	109	0.0260	104	66.3 - 125		4.74	20	
1,1-Dichloroethane	1	0.025	0.0	0.0226	90.5	0.0205	81.8	58.5 - 132		10	20	
1,1-Dichloroethene	1	0.025	0.0	0.0197	78.9	0.0168	67.3	51.1 - 140		15.8	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0267	107	0.0247	98.8	57.4 - 137		7.66	20	
1,2-Dibromoethane	1	0.025	0.0	0.0287	115	0.0269	108	67.1 - 125		6.6	20	
1,2-Dichloroethane	1	0.025	0.0	0.0207	83	0.0201	80.4	60 - 126		3.18	20	
1,2-Dichloropropane	1	0.025	0.0	0.0256	102	0.0234	93.6	64.2 - 123		8.84	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0269	108	0.0239	95.6	63.6 - 132		11.9	20.5	
2-Butanone (MEK)	1	0.125	0.0	0.1062	84.9	0.1102	88.1	22.4 - 138		3.7	27	
2-Hexanone	1	0.125	0.0	0.1448	116	0.1421	114	43.3 - 137		1.85	25.5	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1350	108	0.1330	106	60.8 - 140		1.53	25.1	
Acetone	1	0.125	0.0042	0.0873	66.5	0.0913	69.7	10 - 130		4.44	27.9	
Benzene	1	0.025	0.0	0.0228	91.2	0.0206	82.4	54.3 - 133		10.2	20	
Bromodichloromethane	1	0.025	0.0	0.0243	97.1	0.0220	87.8	63.9 - 121		9.98	20	
Bromoform	1	0.025	0.0	0.0306	122	0.0290	116	59.5 - 134		5.51	20.5	
Bromomethane	1	0.025	0.0	0.0297	119	0.0241	96.2	41.7 - 155		20.9	21.9	
Carbon disulfide	1	0.025	0.0	0.0182	72.8	0.0158	63	43.3 - 149		14.4	20.3	
Carbon tetrachloride	1	0.025	0.0	0.0254	102	0.0218	87.1	55.7 - 134		15.4	20	
Chlorobenzene	1	0.025	0.0	0.0283	113	0.0256	102	67 - 125		10.2	20	
Chlorodibromomethane	1	0.025	0.0	0.0287	115	0.0272	109	64.3 - 125		5.19	20.8	
Chloroethane	1	0.025	0.0	0.0257	103	0.0226	90.2	51.5 - 136		13	40	
Chloroform	1	0.025	0.0	0.0230	91.8	0.0212	84.8	63 - 129		7.99	20	
Chloromethane	1	0.025	0.0	0.0187	74.8	0.0162	64.8	42.4 - 135		14.4	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0240	96.2	0.0219	87.8	59.2 - 129		9.12	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0252	101	0.0226	90.3	66.4 - 125		11	20	
Ethylbenzene	1	0.025	0.0	0.0278	111	0.0247	98.6	61.4 - 133		12	20	
Isopropylbenzene	1	0.025	0.0	0.0284	114	0.0250	100	66.8 - 141		12.6	20	
m&p-Xylenes	1	0.05	0.0	0.0556	111	0.0498	99.5	61.7 - 133		11.1	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0225	90.1	0.0222	88.7	57.7 - 134		1.57	20	
Methylene Chloride	1	0.025	0.0	0.0237	95	0.0223	89.1	58.1 - 122		6.36	20	
Naphthalene	1	0.025	0.0	0.0241	96.3	0.0239	95.8	58 - 135		0.51	25.5	
n-Butylbenzene	1	0.025	0.0	0.0247	98.9	0.0223	89.3	62.7 - 140		10.2	20.3	
n-Propylbenzene	1	0.025	0.0	0.0283	113	0.0250	100	65.9 - 131		12.3	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Matrix Spike / Matrix Spike Duplicate

L733584-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
o-Xylene	1	0.025	0.0	0.0269	107	0.0237	94.8	63.3 - 130		12.5	20	
p-Isopropyltoluene	1	0.025	0.0	0.0301	120	0.0267	107	63.2 - 139		12.1	20.4	
sec-Butylbenzene	1	0.025	0.0	0.0295	118	0.0262	105	62.2 - 136		12	20.3	
Styrene	1	0.025	0.0	0.0274	109	0.0251	100	66.8 - 133		8.52	20	
Tetrachloroethene	1	0.025	0.0	0.0319	128	0.0274	109	53 - 139		15.3	20	
Toluene	1	0.025	0.0	0.0281	112	0.0242	96.7	61.4 - 130		14.9	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0227	91	0.0204	81.7	56.5 - 129		10.7	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0269	107	0.0246	98.6	64.1 - 128		8.67	20	
Trichloroethene	1	0.025	0.0	0.0281	112	0.0245	98.1	44.1 - 149		13.6	20	
Vinyl chloride	1	0.025	0.0	0.0178	71	0.0149	59.6	47.8 - 137		17.5	20	
Xylenes, Total	1	0.075	0.0	0.0825	110	0.0735	98	63.3 - 131		11.6	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG755673
Analysis Date: 11/21/2014 8:51:00 AM Analyst: 611
Instrument ID: VOCMS25
Sample Numbers: L733743-106, -107, -110, -115

Matrix Spike / Matrix Spike Duplicate

L734213-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0252	101	0.0280	112	64 - 128		10.4	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0228	91.3	0.0246	98.2	58.7 - 134		7.3	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0240	96.2	0.0274	110	56 - 132		13	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0239	95.4	0.0268	107	66.3 - 125		11.6	20	
1,1-Dichloroethane	1	0.025	0.0	0.0208	83.2	0.0225	89.8	58.5 - 132		7.72	20	
1,1-Dichloroethene	1	0.025	0.0	0.0209	83.7	0.0218	87.2	51.1 - 140		4.15	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0236	94.4	0.0264	105	57.4 - 137		11.1	20	
1,2-Dibromoethane	1	0.025	0.0	0.0253	101	0.0281	112	67.1 - 125		10.4	20	
1,2-Dichloroethane	1	0.025	0.0	0.0193	77.2	0.0214	85.6	60 - 126		10.3	20	
1,2-Dichloropropane	1	0.025	0.0	0.0220	88.1	0.0246	98.4	64.2 - 123		11	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0241	96.5	0.0268	107	63.6 - 132		10.4	20.5	
2-Butanone (MEK)	1	0.125	0.0	0.0968	77.5	0.1128	90.3	22.4 - 138		15.3	27	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1171	93.7	0.1330	106	60.8 - 140		12.7	25.1	
Acetone	1	0.125	0.0041	0.0891	68	0.1139	87.8	10 - 130		24.4	27.9	
Benzene	1	0.025	0.0	0.0213	85.2	0.0235	94.2	54.3 - 133		10.1	20	
Bromodichloromethane	1	0.025	0.0013	0.0225	84.7	0.0249	94.2	63.9 - 121		10.1	20	
Bromoform	1	0.025	0.0041	0.0308	107	0.0342	120	59.5 - 134		10.5	20.5	
Bromomethane	1	0.025	0.0	0.0280	112	0.0279	112	41.7 - 155		0.1	21.9	
Carbon disulfide	1	0.025	0.0	0.0238	95	0.0248	99.2	43.3 - 149		4.26	20.3	
Carbon tetrachloride	1	0.025	0.0	0.0235	94.2	0.0252	101	55.7 - 134		6.85	20	
Chlorobenzene	1	0.025	0.0	0.0246	98.3	0.0282	113	67 - 125		13.6	20	
Chlorodibromomethane	1	0.025	0.0041	0.0284	97.3	0.0321	112	64.3 - 125		12.3	20.8	
Chloroethane	1	0.025	0.0	0.0275	110	0.0264	106	51.5 - 136		3.87	40	
Chloroform	1	0.025	0.0004	0.0213	83.9	0.0232	91.5	63 - 129		8.52	20	
Chloromethane	1	0.025	0.0	0.0197	78.8	0.0213	85.3	42.4 - 135		7.82	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0223	89.2	0.0245	97.8	59.2 - 129		9.15	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0217	86.8	0.0244	97.4	66.4 - 125		11.6	20	
Ethylbenzene	1	0.025	0.0	0.0246	98.3	0.0279	112	61.4 - 133		12.7	20	
Isopropylbenzene	1	0.025	0.0	0.0253	101	0.0283	113	66.8 - 141		11	20	
m&p-Xylenes	1	0.05	0.0	0.0499	99.9	0.0554	111	61.7 - 133		10.4	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0203	81.1	0.0228	91.3	57.7 - 134		11.9	20	
Methylene Chloride	1	0.025	0.0005	0.0231	90.6	0.0252	99	58.1 - 122		8.69	20	
Naphthalene	1	0.025	0.0	0.0218	87.3	0.0248	99.2	58 - 135		12.8	25.5	
n-Butylbenzene	1	0.025	0.0	0.0224	89.5	0.0244	97.5	62.7 - 140		8.56	20.3	
n-Propylbenzene	1	0.025	0.0	0.0251	101	0.0277	111	65.9 - 131		9.85	20	
o-Xylene	1	0.025	0.0	0.0241	96.6	0.0269	108	63.3 - 130		10.8	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Matrix Spike / Matrix Spike Duplicate

L734213-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
p-Isopropyltoluene	1	0.025	0.0	0.0270	108	0.0300	120	63.2 - 139		10.7	20.4	
sec-Butylbenzene	1	0.025	0.0	0.0258	103	0.0291	116	62.2 - 136		11.9	20.3	
Styrene	1	0.025	0.0	0.0244	97.5	0.0265	106	66.8 - 133		8.37	20	
Tetrachloroethene	1	0.025	0.0	0.0290	116	0.0322	129	53 - 139		10.4	20	
Toluene	1	0.025	0.0	0.0247	98.7	0.0274	110	61.4 - 130		10.4	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0232	92.9	0.0245	97.8	56.5 - 129		5.22	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0219	87.5	0.0262	105	64.1 - 128		17.9	20	
Trichloroethene	1	0.025	0.0	0.0257	103	0.0283	113	44.1 - 149		9.41	20	
Vinyl chloride	1	0.025	0.0	0.0190	76	0.0193	77.1	47.8 - 137		1.43	20	
Xylenes, Total	1	0.075	0.0	0.0741	98.8	0.0823	110	63.3 - 131		10.5	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG755736
 Analysis Date: 11/20/2014 4:24:00 PM Analyst: 644
 Instrument ID: VOCMS6
 Sample Numbers: L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145

Matrix Spike / Matrix Spike Duplicate

L733686-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0251	100	0.0234	93.4	64 - 128		7.23	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0285	114	0.0240	96	58.7 - 134		17.2	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0266	106	0.0254	102	56 - 132		4.48	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0263	105	0.0253	101	66.3 - 125		3.79	20	
1,1-Dichloroethane	1	0.025	0.0	0.0278	111	0.0244	97.5	58.5 - 132		13.1	20	
1,1-Dichloroethene	1	0.025	0.0	0.0234	93.6	0.0201	80.4	51.1 - 140		15.1	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0238	95.2	0.0220	88.2	57.4 - 137		7.71	20	
1,2-Dibromoethane	1	0.025	0.0	0.0235	94.1	0.0225	90.1	67.1 - 125		4.37	20	
1,2-Dichloroethane	1	0.025	0.0	0.0245	98	0.0226	90.5	60 - 126		8	20	
1,2-Dichloropropane	1	0.025	0.0013	0.0266	101	0.0239	90.7	64.2 - 123		10.6	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0253	101	0.0232	93	63.6 - 132		8.6	20.5	
2-Butanone (MEK)	1	0.125	0.0	0.1494	120	0.1339	107	22.4 - 138		10.9	27	
2-Hexanone	1	0.125	0.0	0.1349	108	0.1275	102	43.3 - 137		5.63	25.5	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1345	108	0.1255	100	60.8 - 140		6.98	25.1	
Acetone	1	0.125	0.0038	0.1166	90.2	0.1061	81.8	10 - 130		9.42	27.9	
Benzene	1	0.025	0.1307	0.1488	72.4	0.1405	39.2	54.3 - 133	V	5.74	20	
Bromodichloromethane	1	0.025	0.0	0.0243	97.1	0.0225	90.2	63.9 - 121		7.34	20	
Bromoform	1	0.025	0.0	0.0230	91.8	0.0226	90.5	59.5 - 134		1.44	20.5	
Bromomethane	1	0.025	0.0	0.0344	138	0.0296	118	41.7 - 155		15	21.9	
Carbon disulfide	1	0.025	0.0	0.0188	75.1	0.0159	63.6	43.3 - 149		16.6	20.3	
Carbon tetrachloride	1	0.025	0.0	0.0268	107	0.0228	91.3	55.7 - 134		15.8	20	
Chlorobenzene	1	0.025	0.0	0.0247	98.8	0.0230	92	67 - 125		7.1	20	
Chlorodibromomethane	1	0.025	0.0	0.0234	93.4	0.0227	90.6	64.3 - 125		3.04	20.8	
Chloroethane	1	0.025	0.0	0.0264	106	0.0237	94.7	51.5 - 136		10.9	40	
Chloroform	1	0.025	0.0087	0.0352	106	0.0322	94.1	63 - 129		8.98	20	
Chloromethane	1	0.025	0.0	0.0197	78.9	0.0169	67.5	42.4 - 135		15.6	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0252	101	0.0228	91.2	59.2 - 129		9.92	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0248	99.2	0.0233	93.1	66.4 - 125		6.35	20	
Ethylbenzene	1	0.025	0.0	0.0250	100	0.0229	91.6	61.4 - 133		8.87	20	
Isopropylbenzene	1	0.025	0.0	0.0256	103	0.0234	93.5	66.8 - 141		9.24	20	
m&p-Xylenes	1	0.05	0.0	0.0491	98.2	0.0454	90.8	61.7 - 133		7.85	20	
Methyl tert-butyl ether	1	0.025	0.0015	0.0286	109	0.0263	99.2	57.7 - 134		8.61	20	
Methylene Chloride	1	0.025	0.0008	0.0263	102	0.0235	90.7	58.1 - 122		11.2	20	
Naphthalene	1	0.025	0.0	0.0270	108	0.0256	102	58 - 135		5.64	25.5	
n-Butylbenzene	1	0.025	0.0	0.0285	114	0.0259	104	62.7 - 140		9.55	20.3	
n-Propylbenzene	1	0.025	0.0	0.0258	103	0.0236	94.4	65.9 - 131		9.01	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG755736**
 Analysis Date: 11/20/2014 4:24:00 PM Analyst: 644
 Instrument ID: VOCMS6
 Sample Numbers: L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145

Matrix Spike / Matrix Spike Duplicate

L733686-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
o-Xylene	1	0.025	0.0	0.0255	102	0.0232	92.9	63.3 - 130		9.21	20	
p-Isopropyltoluene	1	0.025	0.0	0.0256	102	0.0234	93.6	63.2 - 139		8.94	20.4	
sec-Butylbenzene	1	0.025	0.0	0.0265	106	0.0238	95.3	62.2 - 136		10.7	20.3	
Styrene	1	0.025	0.0	0.0249	99.6	0.0233	93.2	66.8 - 133		6.59	20	
Tetrachloroethene	1	0.025	0.0	0.0245	98.1	0.0224	89.4	53 - 139		9.28	20	
Toluene	1	0.025	0.0	0.0245	98	0.0221	88.3	61.4 - 130		10.4	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0245	98	0.0214	85.5	56.5 - 129		13.7	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0225	89.8	0.0219	87.5	64.1 - 128		2.55	20	
Trichloroethene	1	0.025	0.0	0.0255	102	0.0225	90	44.1 - 149		12.6	20	
Vinyl chloride	1	0.025	0.0	0.0238	95	0.0194	77.8	47.8 - 137		20	20	
Xylenes, Total	1	0.075	0.0	0.0746	99.4	0.0686	91.5	63.3 - 131		8.31	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG755901
Analysis Date: 11/21/2014 1:17:00 PM Analyst: 644
Instrument ID: VOCMS23
Sample Numbers: L733743-128, -135, -137, -138, -139, -142, -143, -144

Matrix Spike / Matrix Spike Duplicate

L733818-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0213	85.2	0.0201	80.3	64 - 128		5.92	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0235	93.9	0.0228	91.1	58.7 - 134		3.03	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0004	0.0216	84.7	0.0210	82.5	56 - 132		2.59	22.2	
1,1,2-Trichloroethane	1	0.025	0.0019	0.0226	82.8	0.0203	73.5	66.3 - 125		10.8	20	
1,1-Dichloroethane	1	0.025	0.0	0.0209	83.7	0.0194	77.6	58.5 - 132		7.65	20	
1,1-Dichloroethene	1	0.025	0.0	0.0209	83.6	0.0193	77.2	51.1 - 140		7.95	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0004	0.0213	83.9	0.0203	79.6	57.4 - 137		5.21	20	
1,2-Dibromoethane	1	0.025	0.0	0.0209	83.5	0.0190	76	67.1 - 125		9.43	20	
1,2-Dichloroethane	1	0.025	0.0	0.0201	80.3	0.0183	73.2	60 - 126		9.22	20	
1,2-Dichloropropane	1	0.025	0.0013	0.0221	83.5	0.0193	72	64.2 - 123		13.9	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0218	87.2	0.0209	83.8	63.6 - 132		4.06	20.5	
2-Butanone (MEK)	1	0.125	0.0062	0.0901	67.1	0.0877	65.2	22.4 - 138		2.72	27	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1058	84.7	0.1052	84.1	60.8 - 140		0.64	25.1	
Acetone	1	0.125	0.0147	0.0914	61.3	0.0936	63.1	10 - 130		2.37	27.9	
Benzene	1	0.025	0.0	0.0213	85.2	0.0192	76.9	54.3 - 133		10.2	20	
Bromodichloromethane	1	0.025	0.0005	0.0214	83.5	0.0187	72.7	63.9 - 121		13.4	20	
Bromoform	1	0.025	0.0	0.0218	87.2	0.0204	81.7	59.5 - 134		6.5	20.5	
Bromomethane	1	0.025	0.0	0.0219	87.6	0.0204	81.7	41.7 - 155		6.97	21.9	
Carbon tetrachloride	1	0.025	0.0	0.0214	85.8	0.0203	81	55.7 - 134		5.66	20	
Chlorobenzene	1	0.025	0.0	0.0220	88.1	0.0197	79	67 - 125		11	20	
Chlorodibromomethane	1	0.025	0.0	0.0206	82.3	0.0184	73.6	64.3 - 125		11.1	20.8	
Chloroethane	1	0.025	0.0	0.0235	93.9	0.0218	87.2	51.5 - 136		7.41	40	
Chloroform	1	0.025	0.0	0.0217	86.7	0.0201	80.3	63 - 129		7.66	20	
Chloromethane	1	0.025	0.0	0.0155	62	0.0158	63.2	42.4 - 135		1.84	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0214	85.8	0.0201	80.3	59.2 - 129		6.51	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0217	86.9	0.0189	75.7	66.4 - 125		13.7	20	
Ethylbenzene	1	0.025	0.0030	0.0252	88.6	0.0229	79.7	61.4 - 133		9.25	20	
Isopropylbenzene	1	0.025	0.0288	0.0535	99.1	0.0509	88.4	66.8 - 141		5.12	20	
m&p-Xylenes	1	0.05	0.0	0.0446	89.1	0.0402	80.3	61.7 - 133		10.4	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0212	84.9	0.0207	82.6	57.7 - 134		2.74	20	
Methylene Chloride	1	0.025	0.0	0.0203	81.2	0.0191	76.6	58.1 - 122		5.86	20	
Naphthalene	1	0.025	0.1027	0.1288	104	0.1295	107	58 - 135		0.56	25.5	
n-Butylbenzene	1	0.025	0.0105	0.0328	89.1	0.0299	77.3	62.7 - 140		9.42	20.3	
n-Propylbenzene	1	0.025	0.0964	0.1270	122	0.1215	101	65.9 - 131		4.4	20	
o-Xylene	1	0.025	0.0	0.0210	84.1	0.0196	78.5	63.3 - 130		6.87	20	
p-Isopropyltoluene	1	0.025	0.0	0.0225	90	0.0217	87	63.2 - 139		3.45	20.4	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG755901
 Analysis Date: 11/21/2014 1:17:00 PM Analyst: 644
 Instrument ID: VOCMS23
 Sample Numbers: L733743-128, -135, -137, -138, -139, -142, -143, -144

Matrix Spike / Matrix Spike Duplicate

L733818-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
sec-Butylbenzene	1	0.025	0.0081	0.0305	89.9	0.0295	85.6	62.2 - 136		3.56	20.3	
Styrene	1	0.025	0.0	0.0220	88.1	0.0195	78.2	66.8 - 133		11.9	20	
Tetrachloroethene	1	0.025	0.0	0.0241	96.6	0.0215	85.9	53 - 139		11.7	20	
Toluene	1	0.025	0.0006	0.0223	87	0.0201	78.2	61.4 - 130		10.3	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0217	86.9	0.0206	82.2	56.5 - 129		5.45	20	
trans-1,3-Dichloropropene	1	0.025	0.0033	0.0224	76.7	0.0194	64.6	64.1 - 128		14.5	20	
Trichloroethene	1	0.025	0.0	0.0236	94.4	0.0219	87.6	44.1 - 149		7.56	20	
Vinyl chloride	1	0.025	0.0	0.0202	80.8	0.0190	76.2	47.8 - 137		5.89	20	
Xylenes, Total	1	0.075	0.0	0.0656	87.4	0.0598	79.7	63.3 - 131		9.24	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG756231
Analysis Date: 11/22/2014 7:17:00 PM Analyst: 644
Instrument ID: VOCMS30
Sample Numbers: L733743-13, -14, -15, -26, -27, -28

Matrix Spike / Matrix Spike Duplicate

L733847-05

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0252	101	0.0278	111	64 - 128		9.84	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0226	90.5	0.0254	102	58.7 - 134		11.4	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0251	100	0.0278	111	56 - 132		10.3	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0253	101	0.0280	112	66.3 - 125		10.2	20	
1,1-Dichloroethane	1	0.025	0.0	0.0232	93	0.0259	104	58.5 - 132		11	20	
1,1-Dichloroethene	1	0.025	0.0	0.0240	96.2	0.0267	107	51.1 - 140		10.4	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0247	98.8	0.0270	108	57.4 - 137		8.85	20	
1,2-Dibromoethane	1	0.025	0.0	0.0262	105	0.0287	115	67.1 - 125		9.15	20	
1,2-Dichloroethane	1	0.025	0.0	0.0185	74.1	0.0213	85.4	60 - 126		14.2	20	
1,2-Dichloropropane	1	0.025	0.0	0.0235	94	0.0265	106	64.2 - 123		12.1	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0255	102	0.0274	110	63.6 - 132		7.38	20.5	
2-Butanone (MEK)	1	0.125	0.0016	0.1104	87	0.1310	103	22.4 - 138		17.1	27	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1244	99.6	0.1451	116	60.8 - 140		15.3	25.1	
Acetone	1	0.125	0.0825	0.2349	122	0.2592	141	10 - 130	J5	9.83	27.9	
Benzene	1	0.025	0.0	0.0230	92	0.0254	102	54.3 - 133		9.93	20	
Bromodichloromethane	1	0.025	0.0	0.0228	91.2	0.0251	100	63.9 - 121		9.52	20	
Bromoform	1	0.025	0.0	0.0246	98.4	0.0275	110	59.5 - 134		11.1	20.5	
Bromomethane	1	0.025	0.0	0.0151	60.3	0.0184	73.6	41.7 - 155		19.8	21.9	
Carbon tetrachloride	1	0.025	0.0	0.0230	91.9	0.0255	102	55.7 - 134		10.3	20	
Chlorobenzene	1	0.025	0.0	0.0247	98.8	0.0263	105	67 - 125		6.26	20	
Chlorodibromomethane	1	0.025	0.0	0.0253	101	0.0283	113	64.3 - 125		11.3	20.8	
Chloroethane	1	0.025	0.0	0.0140	55.9	0.0159	63.5	51.5 - 136		12.7	40	
Chloroform	1	0.025	0.0	0.0224	89.6	0.0245	98.1	63 - 129		9.04	20	
Chloromethane	1	0.025	0.0	0.0238	95.4	0.0263	105	42.4 - 135		9.63	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0233	93	0.0261	105	59.2 - 129		11.6	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0243	97.3	0.0278	111	66.4 - 125		13.2	20	
Ethylbenzene	1	0.025	0.0	0.0251	100	0.0267	107	61.4 - 133		6.33	20	
Isopropylbenzene	1	0.025	0.0	0.0261	105	0.0284	114	66.8 - 141		8.35	20	
m&p-Xylenes	1	0.05	0.0006	0.0517	102	0.0562	111	61.7 - 133		8.33	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0226	90.6	0.0259	103	57.7 - 134		13.3	20	
Methylene Chloride	1	0.025	0.0	0.0229	91.8	0.0258	103	58.1 - 122		11.9	20	
Naphthalene	1	0.025	0.0003	0.0297	117	0.0345	137	58 - 135	J5	15.1	25.5	
n-Butylbenzene	1	0.025	0.0	0.0278	111	0.0302	121	62.7 - 140		8.1	20.3	
n-Propylbenzene	1	0.025	0.0	0.0259	104	0.0281	112	65.9 - 131		8	20	
o-Xylene	1	0.025	0.0	0.0271	108	0.0299	120	63.3 - 130		9.87	20	
p-Isopropyltoluene	1	0.025	0.0	0.0248	99.3	0.0267	107	63.2 - 139		7.14	20.4	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Matrix Spike / Matrix Spike Duplicate

L733847-05

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
sec-Butylbenzene	1	0.025	0.0	0.0251	100	0.0274	109	62.2 - 136		8.52	20.3	
Styrene	1	0.025	0.0	0.0258	103	0.0286	114	66.8 - 133		10.2	20	
Tetrachloroethene	1	0.025	0.0133	0.0385	101	0.0408	110	53 - 139		5.79	20	
Toluene	1	0.025	0.0	0.0227	90.8	0.0254	102	61.4 - 130		11.4	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0249	99.7	0.0279	112	56.5 - 129		11.4	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0242	96.9	0.0267	107	64.1 - 128		9.63	20	
Trichloroethene	1	0.025	0.0018	0.0270	101	0.0294	110	44.1 - 149		8.5	20	
Vinyl chloride	1	0.025	0.0	0.0212	84.8	0.0240	95.8	47.8 - 137		12.2	20	
Xylenes, Total	1	0.075	0.0006	0.0788	104	0.0861	114	63.3 - 131		8.87	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Matrix Spike / Matrix Spike Duplicate

L734135-06

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0227	90.9	0.0227	90.9	64 - 128		0.02	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0308	123	0.0303	121	58.7 - 134		1.49	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0263	105	0.0261	104	56 - 132		1.02	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0256	103	0.0249	99.8	66.3 - 125		2.75	20	
1,1-Dichloroethane	1	0.025	0.0	0.0304	121	0.0305	122	58.5 - 132		0.58	20	
1,1-Dichloroethene	1	0.025	0.0	0.0321	128	0.0320	128	51.1 - 140		0.28	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0245	98	0.0236	94.5	57.4 - 137		3.62	20	
1,2-Dibromoethane	1	0.025	0.0	0.0248	99.4	0.0246	98.2	67.1 - 125		1.2	20	
1,2-Dichloroethane	1	0.025	0.0	0.0307	123	0.0307	123	60 - 126		0.11	20	
1,2-Dichloropropane	1	0.025	0.0011	0.0275	106	0.0275	105	64.2 - 123		0.17	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0248	99.1	0.0241	96.4	63.6 - 132		2.76	20.5	
2-Butanone (MEK)	1	0.125	0.0008	0.1524	121	0.1561	124	22.4 - 138		2.39	27	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1436	115	0.1427	114	60.8 - 140		0.57	25.1	
Acetone	1	0.125	0.0056	0.1380	106	0.1412	109	10 - 130		2.32	27.9	
Benzene	1	0.025	0.0	0.0281	112	0.0283	113	54.3 - 133		0.86	20	
Bromodichloromethane	1	0.025	0.0033	0.0306	109	0.0308	110	63.9 - 121		0.56	20	
Bromoform	1	0.025	0.0	0.0210	84	0.0218	87.1	59.5 - 134		3.61	20.5	
Bromomethane	1	0.025	0.0	0.0270	108	0.0276	110	41.7 - 155		2.06	21.9	
Carbon tetrachloride	1	0.025	0.0	0.0285	114	0.0284	114	55.7 - 134		0.26	20	
Chlorobenzene	1	0.025	0.0	0.0244	97.5	0.0240	95.8	67 - 125		1.79	20	
Chlorodibromomethane	1	0.025	0.0	0.0246	98.4	0.0245	98.1	64.3 - 125		0.34	20.8	
Chloroethane	1	0.025	0.0	0.0298	119	0.0298	119	51.5 - 136		0.01	40	
Chloroform	1	0.025	0.0172	0.0461	115	0.0474	121	63 - 129		2.9	20	
Chloromethane	1	0.025	0.0	0.0255	102	0.0262	105	42.4 - 135		2.79	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0283	113	0.0278	111	59.2 - 129		1.88	20	
Ethylbenzene	1	0.025	0.0	0.0250	99.9	0.0239	95.7	61.4 - 133		4.2	20	
Isopropylbenzene	1	0.025	0.0	0.0246	98.6	0.0241	96.3	66.8 - 141		2.3	20	
m&p-Xylenes	1	0.05	0.0	0.0489	97.9	0.0474	94.8	61.7 - 133		3.21	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0288	115	0.0289	115	57.7 - 134		0.09	20	
Methylene Chloride	1	0.025	0.0	0.0264	106	0.0265	106	58.1 - 122		0.38	20	
Naphthalene	1	0.025	0.0	0.0261	104	0.0259	104	58 - 135		0.48	25.5	
n-Butylbenzene	1	0.025	0.0	0.0305	122	0.0294	118	62.7 - 140		3.74	20.3	
n-Propylbenzene	1	0.025	0.0	0.0256	102	0.0249	99.7	65.9 - 131		2.5	20	
o-Xylene	1	0.025	0.0	0.0245	98.1	0.0239	95.8	63.3 - 130		2.41	20	
p-Isopropyltoluene	1	0.025	0.0	0.0236	94.5	0.0230	92.2	63.2 - 139		2.52	20.4	
sec-Butylbenzene	1	0.025	0.0	0.0248	99.2	0.0243	97.3	62.2 - 136		2.02	20.3	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Matrix Spike / Matrix Spike Duplicate

L734135-06

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
Styrene	1	0.025	0.0	0.0245	98	0.0242	96.7	66.8 - 133		1.34	20	
Tetrachloroethene	1	0.025	0.0	0.0221	88.4	0.0218	87	53 - 139		1.58	20	
Toluene	1	0.025	0.0005	0.0265	104	0.0263	103	61.4 - 130		0.67	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0263	105	0.0265	106	56.5 - 129		1	20	
Trichloroethene	1	0.025	0.0	0.0243	97.2	0.0241	96.3	44.1 - 149		0.94	20	
Vinyl chloride	1	0.025	0.0	0.0279	112	0.0282	113	47.8 - 137		0.94	20	
Xylenes, Total	1	0.075	0.0	0.0735	97.9	0.0713	95.1	63.3 - 131		2.94	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG756413
Analysis Date: 11/23/2014 10:50:00 PM Analyst: 644
Instrument ID: VOCMS6
Sample Numbers: L733743-148, -150, -158, -159, -160

Matrix Spike / Matrix Spike Duplicate

L733743-158

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1,1,1,2-Tetrachloroethane	1	0.025	0.0	0.0239	95.5	0.0233	93.2	64 - 128		2.42	20	
1,1,1-Trichloroethane	1	0.025	0.0	0.0252	101	0.0243	97.4	58.7 - 134		3.4	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0	0.0268	107	0.0254	102	56 - 132		5.42	22.2	
1,1,2-Trichloroethane	1	0.025	0.0	0.0264	106	0.0247	99	66.3 - 125		6.51	20	
1,1-Dichloroethane	1	0.025	0.0	0.0251	100	0.0242	96.7	58.5 - 132		3.74	20	
1,1-Dichloroethene	1	0.025	0.0	0.0202	80.7	0.0192	76.9	51.1 - 140		4.92	20.2	
1,2,4-Trimethylbenzene	1	0.025	0.0	0.0228	91.2	0.0218	87.3	57.4 - 137		4.42	20	
1,2-Dibromoethane	1	0.025	0.0	0.0231	92.5	0.0223	89.4	67.1 - 125		3.41	20	
1,2-Dichloroethane	1	0.025	0.0	0.0232	92.7	0.0218	87.1	60 - 126		6.18	20	
1,2-Dichloropropane	1	0.025	0.0	0.0251	101	0.0244	97.5	64.2 - 123		3.11	20	
1,3,5-Trimethylbenzene	1	0.025	0.0	0.0242	96.8	0.0230	92	63.6 - 132		5.05	20.5	
2-Butanone (MEK)	1	0.125	0.0	0.1456	116	0.1377	110	22.4 - 138		5.53	27	
2-Hexanone	1	0.125	0.0	0.1381	110	0.1267	101	43.3 - 137		8.59	25.5	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.0	0.1307	105	0.1256	101	60.8 - 140		3.96	25.1	
Acetone	1	0.125	0.0021	0.1136	89.2	0.1097	86.1	10 - 130		3.52	27.9	
Benzene	1	0.025	0.0	0.0240	96.1	0.0231	92.4	54.3 - 133		3.9	20	
Bromodichloromethane	1	0.025	0.0	0.0228	91.1	0.0224	89.5	63.9 - 121		1.74	20	
Bromoform	1	0.025	0.0	0.0228	91	0.0217	86.9	59.5 - 134		4.7	20.5	
Bromomethane	1	0.025	0.0	0.0320	128	0.0311	124	41.7 - 155		2.88	21.9	
Carbon disulfide	1	0.025	0.0	0.0145	58	0.0139	55.4	43.3 - 149		4.55	20.3	
Carbon tetrachloride	1	0.025	0.0	0.0228	91.3	0.0220	88	55.7 - 134		3.74	20	
Chlorobenzene	1	0.025	0.0	0.0237	94.9	0.0229	91.5	67 - 125		3.7	20	
Chlorodibromomethane	1	0.025	0.0	0.0234	93.7	0.0225	90	64.3 - 125		4.03	20.8	
Chloroethane	1	0.025	0.0	0.0232	92.9	0.0226	90.4	51.5 - 136		2.69	40	
Chloroform	1	0.025	0.0	0.0250	100	0.0241	96.3	63 - 129		3.95	20	
Chloromethane	1	0.025	0.0	0.0172	68.8	0.0166	66.4	42.4 - 135		3.5	20	
cis-1,2-Dichloroethene	1	0.025	0.0	0.0228	91.1	0.0221	88.4	59.2 - 129		2.97	20	
cis-1,3-Dichloropropene	1	0.025	0.0	0.0230	92.1	0.0226	90.3	66.4 - 125		1.99	20	
Ethylbenzene	1	0.025	0.0	0.0234	93.5	0.0221	88.4	61.4 - 133		5.57	20	
Isopropylbenzene	1	0.025	0.0	0.0240	96	0.0227	90.9	66.8 - 141		5.42	20	
m&p-Xylenes	1	0.05	0.0	0.0460	92	0.0437	87.4	61.7 - 133		5.21	20	
Methyl tert-butyl ether	1	0.025	0.0	0.0260	104	0.0242	96.7	57.7 - 134		7.32	20	
Methylene Chloride	1	0.025	0.0	0.0234	93.7	0.0224	89.5	58.1 - 122		4.56	20	
Naphthalene	1	0.025	0.0	0.0256	102	0.0252	101	58 - 135		1.72	25.5	
n-Butylbenzene	1	0.025	0.0	0.0261	104	0.0254	102	62.7 - 140		2.59	20.3	
n-Propylbenzene	1	0.025	0.0	0.0242	96.9	0.0230	92	65.9 - 131		5.23	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Matrix Spike / Matrix Spike Duplicate

L733743-158

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
o-Xylene	1	0.025	0.0	0.0242	96.8	0.0226	90.2	63.3 - 130		7.01	20	
p-Isopropyltoluene	1	0.025	0.0	0.0242	96.8	0.0231	92.3	63.2 - 139		4.82	20.4	
sec-Butylbenzene	1	0.025	0.0	0.0248	99.1	0.0236	94.5	62.2 - 136		4.76	20.3	
Styrene	1	0.025	0.0	0.0232	92.7	0.0225	90.2	66.8 - 133		2.79	20	
Tetrachloroethene	1	0.025	0.0	0.0215	85.8	0.0207	82.7	53 - 139		3.72	20	
Toluene	1	0.025	0.0	0.0221	88.2	0.0217	86.6	61.4 - 130		1.82	20	
trans-1,2-Dichloroethene	1	0.025	0.0	0.0210	83.8	0.0202	80.8	56.5 - 129		3.65	20	
trans-1,3-Dichloropropene	1	0.025	0.0	0.0217	86.7	0.0223	89.1	64.1 - 128		2.78	20	
Trichloroethene	1	0.025	0.0	0.0221	88.6	0.0219	87.5	44.1 - 149		1.16	20	
Vinyl chloride	1	0.025	0.0	0.0190	75.9	0.0185	73.8	47.8 - 137		2.73	20	
Xylenes, Total	1	0.075	0.0	0.0702	93.6	0.0662	88.3	63.3 - 131		5.83	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754786
 Analysis Date: 11/18/2014 2:21:00 PM Analyst: 644
 Instrument ID: VOCMS2
 Sample Numbers: L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20

Internal Standard Response and Retention Time Summary

File ID: 1118_02
 Analyzed: 11/18/14 093300

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	353813	8.21	741049	4.67	127022	5.83	406943	4.33
Upper Limit	708000	8.71	1480000	5.17	254000	6.33	814000	4.83
Lower Limit	177000	7.71	371000	4.17	63500	5.33	203000	3.83
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-16	312467	8.22	756219	4.67	120093	5.83	403047	4.34
L733743-17	306742	8.22	759637	4.67	120953	5.83	390356	4.33
L733743-18	304002	8.22	749766	4.67	119735	5.83	393872	4.34
L733743-19	299516	8.22	769402	4.67	120802	5.83	398290	4.34
L733743-20	299127	8.22	737003	4.67	116393	5.83	376962	4.34
L733743-01	300678	8.22	740259	4.67	119685	5.83	380157	4.34
L733743-02	299843	8.22	749033	4.67	120913	5.83	394355	4.34
L733743-03	303670	8.22	756898	4.67	123492	5.83	391784	4.34
L733743-04	303333	8.22	750730	4.67	120515	5.83	388704	4.34
L733743-05	305869	8.22	770638	4.67	122217	5.83	393226	4.34
MSD WG754786	359692	8.21	746292	4.67	130189	5.83	406736	4.33
MS WG754786	329205	8.22	693833	4.67	119336	5.83	382246	4.34
LCSD WG754786	342111	8.21	725955	4.67	121231	5.83	395550	4.33
LCS WG754786	352046	8.22	746679	4.67	125768	5.83	414703	4.34
BLANK WG754786	306059	8.22	692735	4.67	108988	5.83	365986	4.34

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Internal Standard Response and Retention Time Summary

File ID: 1118_31

Analyzed: 11/18/14 191600

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	352396	8.21	828935	4.67	136452	5.83	455349	4.34
Upper Limit	705000	8.71	1660000	5.17	273000	6.33	911000	4.84
Lower Limit	176000	7.71	414000	4.17	68200	5.33	228000	3.84
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-21	313004	8.22	783702	4.67	122965	5.83	406662	4.34
MSD WG754787	364010	8.21	852505	4.67	138071	5.83	450081	4.33
MS WG754787	374476	8.22	848313	4.67	142019	5.83	458777	4.34
LCSD WG754787	350806	8.21	791162	4.67	131521	5.83	430595	4.34
LCS WG754787	354039	8.22	775571	4.67	126659	5.83	432156	4.34
BLANK WG754787	315720	8.22	807497	4.67	127212	5.83	412152	4.34

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
IS2 -- 1,4-DIFLUOROBENZENE
IS3 -- 2-BROMO-1-CHLOROPROPANE
IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754909
 Analysis Date: 11/21/2014 11:52:00 AM Analyst: 644
 Instrument ID: VOCMS20
 Sample Numbers: L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44

Internal Standard Response and Retention Time Summary

File ID: 1121_02
 Analyzed: 11/21/14 071400

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	190836	8.22	413536	4.67	68737	5.84	238940	4.34
Upper Limit	382000	8.72	827000	5.17	137000	6.34	478000	4.84
Lower Limit	95400	7.72	207000	4.17	34400	5.34	119000	3.84
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-25	176122	8.22	391196	4.67	64031	5.84	212156	4.34
L733743-29	193475	8.22	408713	4.67	67790	5.84	220787	4.34
L733743-30	189373	8.22	397437	4.67	66833	5.84	216954	4.34
L733743-31	191328	8.22	409802	4.67	68904	5.84	222591	4.34
L733743-32	175038	8.22	372218	4.67	62255	5.84	199359	4.34
L733743-33	189881	8.22	399274	4.67	67446	5.84	216820	4.34
L733743-34	165464	8.22	333936	4.67	58383	5.84	181893	4.34
L733743-35	181406	8.22	392905	4.67	64624	5.84	213673	4.34
L733743-36	185556	8.22	402157	4.67	66172	5.84	219276	4.34
L733743-37	181099	8.22	394615	4.67	62995	5.84	213188	4.34
L733743-38	200639	8.22	430077	4.67	71123	5.84	230764	4.34
L733743-39	180244	8.22	380210	4.67	63418	5.84	208170	4.34
L733743-40	200939	8.22	432514	4.67	70344	5.84	235035	4.34
L733743-41	186189	8.22	414042	4.67	66996	5.84	224313	4.34
L733743-42	190298	8.22	412240	4.67	66201	5.84	222714	4.34
L733743-44	186643	8.22	407431	4.67	66872	5.84	222056	4.34
MSD WG754909	192499	8.22	403827	4.67	66061	5.84	226858	4.34
MS WG754909	181888	8.22	380998	4.67	65597	5.84	211292	4.34
LCSD WG754909	192837	8.22	413181	4.67	69508	5.84	231999	4.34
LCS WG754909	190509	8.22	410042	4.67	64952	5.84	229262	4.34
BLANK WG754909	174952	8.22	400983	4.67	64074	5.84	214792	4.34

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754914
 Analysis Date: 11/17/2014 2:20:00 AM Analyst: 644
 Instrument ID: VOCMS14
 Sample Numbers: L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65

Internal Standard Response and Retention Time Summary

File ID: 1116_34
 Analyzed: 11/16/14 215200

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	195956	8.35	511217	4.79	67971	5.96	312653	4.45
Upper Limit	392000	8.85	1020000	5.29	136000	6.46	625000	4.95
Lower Limit	98000	7.85	256000	4.29	34000	5.46	156000	3.95
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-64	195342	8.34	510033	4.79	60807	5.95	293574	4.45
L733743-65	210979	8.34	521932	4.79	64960	5.95	303944	4.45
L733743-45	217825	8.34	551302	4.79	69515	5.95	313096	4.45
L733743-46	205910	8.34	535021	4.79	68203	5.95	300864	4.45
L733743-47	227690	8.34	608962	4.79	72139	5.95	341440	4.45
L733743-48	262840	8.34	671132	4.79	81906	5.95	384552	4.45
L733743-49	276337	8.34	747023	4.79	93949	5.95	421637	4.45
L733743-50	255042	8.34	671405	4.78	80516	5.95	382470	4.45
L733743-51	246861	8.34	651468	4.78	80139	5.95	369127	4.45
L733743-52	260154	8.34	623816	4.79	76194	5.95	344187	4.45
L733743-53	246701	8.34	637940	4.79	76834	5.95	342028	4.45
L733743-54	255265	8.34	646322	4.79	79168	5.95	371305	4.45
L733743-55	266670	8.34	676776	4.79	84464	5.95	388913	4.45
L733743-57	255502	8.34	654290	4.78	81397	5.95	376217	4.45
L733743-58	253915	8.34	651431	4.78	80865	5.95	361455	4.45
L733743-59	255891	8.34	634375	4.78	86073	5.95	363835	4.45
L733743-60	238312	8.34	598709	4.79	73327	5.95	352789	4.45
L733743-61	256207	8.34	664186	4.78	80694	5.95	383329	4.45
L733743-62	277705	8.34	711114	4.78	89010	5.95	407043	4.45
L733743-63	264829	8.34	672775	4.79	79067	5.95	376375	4.45
MSD WG754914	215961	8.34	519121	4.79	65422	5.95	302854	4.45
MS WG754914	238217	8.35	557693	4.79	75899	5.95	332673	4.45
LCSD WG754914	208711	8.34	547626	4.79	66781	5.95	317927	4.45
LCS WG754914	227040	8.34	586049	4.79	77408	5.96	353972	4.45
BLANK WG754914	202007	8.34	527455	4.79	63780	5.95	312076	4.45

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754915
 Analysis Date: 11/19/2014 3:01:00 PM Analyst: 611
 Instrument ID: VOCMS25
 Sample Numbers: L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86

Internal Standard Response and Retention Time Summary

File ID: 1119_01
 Analyzed: 11/19/14 091200

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	405237	7.65	914568	4.11	132891	5.25	521212	3.79
Upper Limit	810000	8.15	1830000	4.61	266000	5.75	1040000	4.29
Lower Limit	203000	7.15	457000	3.61	66400	4.75	261000	3.29
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-76	365960	7.66	803171	4.11	119415	5.26	467752	3.79
L733743-67	346797	7.66	746136	4.11	113053	5.26	434925	3.80
L733743-68	368903	7.66	797300	4.12	121003	5.26	462319	3.80
L733743-75	331244	7.66	711077	4.11	109787	5.26	425526	3.79
L733743-77	333502	7.66	724360	4.11	110238	5.26	428656	3.80
L733743-78	362471	7.66	772643	4.11	118246	5.26	463222	3.80
L733743-79	324186	7.66	708963	4.11	106104	5.25	425627	3.79
L733743-80	315825	7.66	691269	4.11	102013	5.26	417352	3.79
L733743-82	328298	7.66	708215	4.11	107606	5.25	427527	3.79
L733743-83	311500	7.66	685685	4.11	101305	5.26	415228	3.79
L733743-84	320086	7.66	697409	4.11	102090	5.26	420843	3.79
L733743-85	318629	7.66	682571	4.11	100847	5.26	414046	3.79
L733743-86	334075	7.66	727428	4.11	110130	5.26	431705	3.79
MSD WG754915	362703	7.66	762846	4.11	113476	5.26	438120	3.79
MS WG754915	379199	7.66	808760	4.11	121515	5.26	464148	3.79
LCSD WG754915	422422	7.66	913968	4.11	134469	5.25	521373	3.79
LCS WG754915	370833	7.66	792794	4.11	118779	5.25	456412	3.79
BLANK WG754915	353256	7.66	773569	4.11	115287	5.26	452317	3.80

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754917
 Analysis Date: 11/19/2014 3:06:00 PM Analyst: 644
 Instrument ID: VOCMS30
 Sample Numbers: L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125

Internal Standard Response and Retention Time Summary

File ID: 1119_03
 Analyzed: 11/19/14 100800

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	362031	8.28	773243	4.71	122288	5.89	470350	4.38
Upper Limit	724000	8.78	1550000	5.21	245000	6.39	941000	4.88
Lower Limit	181000	7.78	387000	4.21	61100	5.39	235000	3.88
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-115	364770	8.28	755312	4.71	124407	5.89	462428	4.38
L733743-106 50X	378357	8.28	783629	4.71	123481	5.89	486728	4.38
L733743-108	378411	8.28	783456	4.71	126851	5.89	488396	4.38
L733743-109 50X	390778	8.28	799890	4.71	128776	5.89	502487	4.38
L733743-111 250X	386247	8.28	800737	4.71	127341	5.89	498215	4.38
L733743-112 10X	383000	8.28	807748	4.71	125227	5.89	498574	4.38
L733743-114 10X	387755	8.28	795274	4.71	128588	5.89	511019	4.38
L733743-116	384039	8.28	802492	4.71	130460	5.89	486850	4.38
L733743-117	391002	8.28	786679	4.71	129856	5.89	490554	4.38
L733743-118	385313	8.28	778593	4.71	126642	5.89	521685	4.38
L733743-119	389759	8.28	811629	4.71	131995	5.89	507273	4.38
L733743-120	397860	8.28	822239	4.71	132655	5.89	506153	4.38
L733743-121	389929	8.28	809992	4.71	130586	5.89	499890	4.38
L733743-122	388406	8.28	800375	4.71	128600	5.89	490441	4.38
L733743-123	392827	8.28	810901	4.71	129266	5.89	502197	4.38
L733743-124	394466	8.28	797975	4.71	125734	5.89	491605	4.38
L733743-125	392050	8.28	804812	4.71	123283	5.89	496125	4.38
L733743-113	386248	8.28	800617	4.71	129603	5.89	487542	4.38
L733743-107 10X	382125	8.28	788544	4.71	124286	5.89	502757	4.38
MSD WG754917	371047	8.28	783380	4.71	126352	5.89	479269	4.38
MS WG754917	370749	8.28	796702	4.71	127661	5.89	487107	4.38
LCSD WG754917	361733	8.28	766017	4.71	117847	5.89	470281	4.38
LCS WG754917	359390	8.28	777225	4.71	121674	5.89	471566	4.38
BLANK WG754917	368449	8.28	785515	4.71	122586	5.89	489281	4.38

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754918
 Analysis Date: 11/20/2014 5:53:00 AM Analyst: 644
 Instrument ID: VOCMS2
 Sample Numbers: L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141

Internal Standard Response and Retention Time Summary

File ID: 1120_02
 Analyzed: 11/20/14 024200

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	361217	8.22	845531	4.67	142877	5.83	465058	4.34
Upper Limit	722000	8.72	1690000	5.17	286000	6.33	930000	4.84
Lower Limit	181000	7.72	423000	4.17	71400	5.33	233000	3.84
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-126	348685	8.22	838778	4.67	129114	5.83	444992	4.34
L733743-127	320975	8.22	783335	4.67	125752	5.83	402576	4.34
L733743-128	353605	8.22	871639	4.67	136924	5.83	423906	4.33
L733743-129	334762	8.22	834719	4.67	126041	5.83	449245	4.34
L733743-130	318373	8.22	788893	4.67	123688	5.83	405343	4.34
L733743-131	330888	8.22	809796	4.67	123515	5.83	444707	4.34
L733743-132	325037	8.22	800043	4.67	126031	5.83	414604	4.34
L733743-133	321763	8.22	768644	4.67	119632	5.83	401516	4.34
L733743-134	312315	8.22	740154	4.67	118884	5.83	382997	4.34
L733743-135	320795	8.22	797313	4.67	123093	5.83	437768	4.33
L733743-136	324808	8.22	788966	4.67	123958	5.83	415912	4.34
L733743-137	322443	8.22	778192	4.67	117839	5.83	432191	4.34
L733743-138	337166	8.22	810599	4.67	124309	5.83	443682	4.34
L733743-139	336201	8.22	832223	4.67	126039	5.83	445912	4.34
L733743-140	337694	8.22	799291	4.67	125599	5.83	439738	4.34
L733743-141	319814	8.22	815842	4.67	128339	5.83	442609	4.34
MSD WG754918	362278	8.22	845962	4.67	138527	5.83	449136	4.34
MS WG754918	362224	8.22	835903	4.67	138907	5.83	452125	4.34
LCSD WG754918	353085	8.22	809146	4.67	131986	5.83	435708	4.34
LCS WG754918	365328	8.22	845275	4.67	141294	5.83	457267	4.34
BLANK WG754918	320773	8.22	777886	4.67	120647	5.83	407401	4.34

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754919
 Analysis Date: 11/21/2014 10:42:00 PM Analyst: 644
 Instrument ID: VOCMS13
 Sample Numbers: L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162

Internal Standard Response and Retention Time Summary

File ID: 1121_03
 Analyzed: 11/21/14 135200

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	358492	8.14	981999	4.63	125873	5.78	620940	4.30
Upper Limit	717000	8.64	1960000	5.13	252000	6.28	1240000	4.80
Lower Limit	179000	7.64	491000	4.13	62900	5.28	310000	3.80
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-161	491615	8.14	1007550	4.62	145065	5.77	613845	4.30
L733743-162	402897	8.14	953924	4.63	132992	5.78	583528	4.30
L733743-156	364278	8.14	931851	4.63	120400	5.78	607648	4.30
L733743-146	343124	8.14	937757	4.63	114525	5.78	601430	4.30
L733743-147	324123	8.14	863533	4.63	108079	5.78	550473	4.30
L733743-149	313799	8.14	842519	4.63	102275	5.78	538049	4.30
L733743-151	317849	8.14	873285	4.63	105436	5.78	555295	4.30
L733743-152	314476	8.14	857929	4.63	101857	5.78	552240	4.30
L733743-153	334362	8.14	897830	4.63	111900	5.78	563097	4.30
L733743-154	387226	8.14	961625	4.63	126602	5.78	616380	4.30
L733743-155	335565	8.14	852442	4.63	108831	5.78	543781	4.30
L733743-157	332712	8.14	907782	4.63	110813	5.78	581929	4.30
MSD WG754919	343553	8.14	907937	4.63	114893	5.78	564313	4.30
MS WG754919	391331	8.14	1015649	4.62	135947	5.77	633572	4.30
LCSD WG754919	326897	8.14	868694	4.63	113046	5.78	547302	4.30
LCS WG754919	357866	8.14	928324	4.62	121519	5.78	581364	4.30
BLANK WG754919	349328	8.14	946376	4.63	118557	5.78	604742	4.30

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG755340
 Analysis Date: 11/22/2014 12:20:00 AM Analyst: 611
 Instrument ID: VOCMS25
 Sample Numbers: L733743-06, -07, -08, -09, -10, -11, -12

Internal Standard Response and Retention Time Summary

File ID: 1121_32
 Analyzed: 11/21/14 161500

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	395915	7.65	835462	4.10	122260	5.24	508385	3.79
Upper Limit	792000	8.15	1670000	4.60	245000	5.74	1020000	4.29
Lower Limit	198000	7.15	418000	3.60	61100	4.74	254000	3.29
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-06	326119	7.65	686390	4.10	106830	5.25	418696	3.78
L733743-07	324128	7.65	684178	4.10	104080	5.25	415033	3.79
L733743-08	324110	7.65	700305	4.10	104223	5.25	417211	3.78
L733743-09	324129	7.65	692766	4.10	103750	5.25	411041	3.78
L733743-10	311929	7.65	662463	4.10	99368	5.25	402813	3.78
L733743-11	338882	7.65	723034	4.10	109739	5.25	434348	3.78
L733743-12	330880	7.65	700706	4.10	107799	5.25	423802	3.78
MSD WG755340	351924	7.65	743638	4.10	109372	5.25	455716	3.78
MS WG755340	416685	7.65	870834	4.11	130172	5.25	551889	3.79
LCSD WG755340	363946	7.65	773844	4.10	115112	5.24	470880	3.78
LCS WG755340	367890	7.65	786034	4.10	114756	5.24	485702	3.78
BLANK WG755340	325135	7.65	708599	4.10	106439	5.25	431326	3.79

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Internal Standard Response and Retention Time Summary

File ID: 1121_02
Analyzed: 11/21/14 035100

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	374731	7.65	778321	4.10	112172	5.24	479076	3.78
Upper Limit	749000	8.15	1560000	4.60	224000	5.74	958000	4.28
Lower Limit	187000	7.15	389000	3.60	56100	4.74	240000	3.28
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-106 500X	374977	7.65	814978	4.10	117828	5.24	503010	3.78
L733743-107 200X	410585	7.65	878752	4.10	128012	5.24	543117	3.79
L733743-110 25X	342965	7.65	729537	4.10	107357	5.24	452084	3.78
L733743-115 10X	332897	7.65	722113	4.10	106930	5.24	448723	3.78
MSD WG755673	364951	7.65	759877	4.10	112350	5.24	476485	3.78
MS WG755673	374977	7.65	789781	4.10	117243	5.24	493064	3.78
LCSD WG755673	377933	7.65	774746	4.10	116708	5.24	487560	3.78
LCS WG755673	376478	7.65	779363	4.10	116110	5.25	478931	3.78
BLANK WG755673	352983	7.65	770030	4.10	111888	5.24	469297	3.78

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
IS2 -- 1,4-DIFLUOROBENZENE
IS3 -- 2-BROMO-1-CHLOROPROPANE
IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG755736
 Analysis Date: 11/20/2014 4:24:00 PM Analyst: 644
 Instrument ID: VOCMS6
 Sample Numbers: L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145

Internal Standard Response and Retention Time Summary

File ID: 1120_05
 Analyzed: 11/20/14 081600

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	188423	8.10	432506	4.58	68944	5.73	230842	4.25
Upper Limit	377000	8.60	865000	5.08	138000	6.23	462000	4.75
Lower Limit	94200	7.60	216000	4.08	34500	5.23	115000	3.75
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-114	180935	8.10	413092	4.58	64204	5.73	227498	4.25
L733743-142	174099	8.10	400125	4.58	61325	5.73	204028	4.25
L733743-143	183378	8.10	419154	4.58	64872	5.73	216924	4.25
L733743-144	177087	8.10	422000	4.58	66082	5.73	219433	4.25
L733743-145	191977	8.10	451582	4.58	67868	5.73	254947	4.25
L733743-69	180596	8.10	424348	4.58	64710	5.73	229263	4.25
L733743-70	160435	8.10	379499	4.58	58820	5.73	213182	4.25
L733743-71	179768	8.10	419920	4.58	66674	5.73	236845	4.25
L733743-72	172399	8.10	410127	4.58	63823	5.73	223183	4.25
L733743-73	184714	8.10	439868	4.58	66996	5.73	236680	4.25
L733743-74	182121	8.10	420899	4.58	64728	5.73	229762	4.25
L733743-81	185584	8.10	437169	4.58	68114	5.73	243544	4.25
MSD WG755736	170404	8.10	418829	4.58	64403	5.73	225149	4.25
MSD WG755736	178149	8.10	405276	4.58	66546	5.73	213526	4.25
MS WG755736	165129	8.10	402058	4.58	62353	5.73	215876	4.25
MS WG755736	176124	8.10	425404	4.58	71408	5.73	221206	4.25
LCSD WG755736	182502	8.10	432734	4.58	70590	5.73	234815	4.25
LCSD WG755736	181596	8.10	442512	4.58	66688	5.73	240014	4.25
LCS WG755736	187476	8.10	430508	4.58	69570	5.73	230840	4.25
LCS WG755736	179782	8.10	417888	4.58	64182	5.73	227501	4.25
BLANK WG755736	185850	8.10	441230	4.58	68502	5.73	251525	4.25

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG755901
 Analysis Date: 11/21/2014 1:17:00 PM Analyst: 644
 Instrument ID: VOCMS23
 Sample Numbers: L733743-128, -135, -137, -138, -139, -142, -143, -144

Internal Standard Response and Retention Time Summary

File ID: 1121_02
 Analyzed: 11/21/14 074700

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	234115	7.78	488750	4.22	82995	5.37	278941	3.90
Upper Limit	468000	8.28	978000	4.72	166000	5.87	558000	4.40
Lower Limit	117000	7.28	244000	3.72	41500	4.87	139000	3.40
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-128	234943	7.78	483521	4.22	80707	5.37	277969	3.90
L733743-135	240726	7.78	493609	4.22	83397	5.37	278413	3.90
L733743-137	238487	7.78	492221	4.22	83113	5.37	280907	3.90
L733743-138	226236	7.78	467005	4.22	78133	5.37	264853	3.90
L733743-139	227141	7.78	458393	4.22	77311	5.37	263534	3.90
L733743-142	219105	7.78	447094	4.22	75617	5.37	260469	3.90
L733743-143	252992	7.78	521802	4.22	87014	5.37	300560	3.90
L733743-144	222900	7.78	450330	4.22	75721	5.37	259084	3.90
MSD WG755901	222004	7.78	446283	4.22	80774	5.37	255845	3.90
MS WG755901	220260	7.78	475275	4.22	86700	5.37	268821	3.90
LCSD WG755901	239544	7.78	501977	4.22	84757	5.37	284006	3.90
LCS WG755901	201055	7.78	416835	4.22	70733	5.37	237738	3.90
BLANK WG755901	245626	7.78	500262	4.22	84836	5.37	283689	3.90

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Internal Standard Response and Retention Time Summary

File ID: 1122_31

Analyzed: 11/22/14 120300

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	367062	8.28	779992	4.71	122497	5.89	481663	4.38
Upper Limit	734000	8.78	1560000	5.21	245000	6.39	963000	4.88
Lower Limit	184000	7.78	390000	4.21	61200	5.39	241000	3.88
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-13	375520	8.28	795800	4.71	122598	5.89	500854	4.38
L733743-14	370274	8.28	794654	4.71	121261	5.89	505078	4.38
L733743-15	369046	8.28	787990	4.71	119397	5.89	498505	4.38
L733743-26	367014	8.28	788117	4.71	121661	5.89	498659	4.38
L733743-27	365257	8.28	788710	4.71	123177	5.89	497889	4.38
L733743-28	347060	8.28	756081	4.71	116851	5.89	476977	4.38
MSD WG756231	337192	8.28	744494	4.71	116175	5.89	464784	4.38
MS WG756231	345019	8.28	770707	4.71	117998	5.89	481988	4.38
LCSD WG756231	362125	8.28	787711	4.71	118367	5.89	485521	4.38
LCS WG756231	363675	8.28	782612	4.71	120149	5.89	495967	4.38
BLANK WG756231	371259	8.28	802836	4.71	121709	5.89	503515	4.38

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
IS2 -- 1,4-DIFLUOROBENZENE
IS3 -- 2-BROMO-1-CHLOROPROPANE
IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Internal Standard Response and Retention Time Summary

File ID: 1123_32
Analyzed: 11/23/14 123200

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	288397	8.05	745474	4.52	129284	5.67	371670	4.19
Upper Limit	577000	8.55	1490000	5.02	259000	6.17	743000	4.69
Lower Limit	144000	7.55	373000	4.02	64600	5.17	186000	3.69
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-97	285706	8.05	746609	4.52	134797	5.67	388337	4.19
MSD WG756371	289620	8.05	752346	4.52	132469	5.67	376719	4.19
MS WG756371	286038	8.05	745587	4.52	129763	5.67	378038	4.19
LCSD WG756371	295785	8.05	757240	4.52	133528	5.67	388788	4.19
LCS WG756371	298350	8.05	762257	4.52	133152	5.67	385958	4.19
BLANK WG756371	279093	8.05	754185	4.52	131635	5.67	390985	4.19

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
IS2 -- 1,4-DIFLUOROBENZENE
IS3 -- 2-BROMO-1-CHLOROPROPANE
IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG756413
 Analysis Date: 11/23/2014 10:50:00 PM Analyst: 644
 Instrument ID: VOCMS6
 Sample Numbers: L733743-148, -150, -158, -159, -160

Internal Standard Response and Retention Time Summary

File ID: 1123_37
 Analyzed: 11/23/14 173400

	IS4		IS2		IS3		IS1	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	187428	8.10	441757	4.58	69040	5.73	238578	4.25
Upper Limit	375000	8.60	884000	5.08	138000	6.23	477000	4.75
Lower Limit	93700	7.60	221000	4.08	34500	5.23	119000	3.75
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-158	185733	8.10	444992	4.58	67574	5.73	245884	4.25
L733743-148	184521	8.10	431106	4.58	67278	5.73	240104	4.25
L733743-150	181238	8.10	436345	4.58	66744	5.73	244248	4.25
L733743-159	188013	8.10	439447	4.58	67982	5.73	244022	4.25
L733743-160	191965	8.10	446971	4.58	69391	5.73	247199	4.25
MSD WG756413	176532	8.10	430520	4.58	66713	5.73	235820	4.25
MS WG756413	176788	8.10	433210	4.58	65201	5.73	232266	4.25
LCSD WG756413	182699	8.10	440694	4.58	67225	5.73	238863	4.25
LCS WG756413	178907	8.10	430831	4.58	67640	5.73	231833	4.25
BLANK WG756413	190492	8.10	460249	4.58	69268	5.73	254215	4.25

Legend:

IS4 -- 1,4-DICHLOROBENZENE-D4
 IS2 -- 1,4-DIFLUOROBENZENE
 IS3 -- 2-BROMO-1-CHLOROPROPANE
 IS1 -- PENTAFLUOROBENZENE

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754786
 Analysis Date: 11/18/2014 2:21:00 PM Analyst: 644
 Instrument ID: VOCMS2
 Sample Numbers: L733743-01, -02, -03, -04, -05, -16, -17, -18, -19, -20

Surrogate Summary

		BFB		DFM		TD8		TFT		
Laboratory										
Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-01	VOCMS2	1118_15	0.0383	95.7	0.0397	99.4	0.0433	108		
L733743-02	VOCMS2	1118_16	0.0369	92.3	0.0394	98.5	0.0436	109		
L733743-03	VOCMS2	1118_17	0.0368	92.1	0.0398	99.6	0.0435	109		
L733743-04	VOCMS2	1118_18	0.0373	93.2	0.0397	99.2	0.0428	107		
L733743-05	VOCMS2	1118_19	0.0378	94.5	0.0401	100	0.0428	107		
L733743-16	VOCMS2	1118_10	0.0394	98.6	0.0392	98.0	0.0429	107		
L733743-17	VOCMS2	1118_11	0.0381	95.1	0.0395	98.7	0.0424	106		
L733743-18	VOCMS2	1118_12	0.0385	96.2	0.0391	97.6	0.0429	107		
L733743-19	VOCMS2	1118_13	0.0378	94.6	0.0385	96.1	0.0425	106		
L733743-20	VOCMS2	1118_14	0.0387	96.8	0.0398	99.4	0.0429	107		
BLANK WG754786	VOCMS2	1118_09-2	0.0409	102	0.0404	101	0.0420	105	0.0409	102
LCS WG754786	VOCMS2	1118_03-2	0.0384	96.0	0.0429	107	0.0420	105	0.0430	107
LCSD WG754786	VOCMS2	1118_04-2	0.0392	98.0	0.0438	110	0.0421	105	0.0422	106
MS WG754786	VOCMS2	1118_06-2	0.0384	96.0	0.0435	109	0.0421	105	0.0420	105
MSD WG754786	VOCMS2	1118_07-2	0.0381	95.2	0.0444	111	0.0420	105	0.0417	104

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754787
Analysis Date:	11/19/2014 12:35:00 AM	Analyst:	644
Instrument ID:	VOCMS2		
Sample Numbers:	L733743-21		

Surrogate Summary

Laboratory		BFB			DFM		TD8		TFT	
Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-21	VOCMS2	1118_43	0.0380	95.0	0.0386	96.5	0.0420	105		
BLANK WG754787	VOCMS2	1118_38-2	0.0366	91.4	0.0393	98.2	0.0419	105	0.0387	96.6
LCS WG754787	VOCMS2	1118_32-2	0.0373	93.1	0.0421	105	0.0414	103	0.0406	101
LCSD WG754787	VOCMS2	1118_33-2	0.0372	93.0	0.0411	103	0.0414	103	0.0402	100
MS WG754787	VOCMS2	1118_35-2	0.0370	92.5	0.0419	105	0.0416	104	0.0397	99.2
MSD WG754787	VOCMS2	1118_36-2	0.0374	93.6	0.0416	104	0.0418	105	0.0397	99.2

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754909
 Analysis Date: 11/21/2014 11:52:00 AM Analyst: 644
 Instrument ID: VOCMS20
 Sample Numbers: L733743-25, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44

Surrogate Summary

			BFB		DFM		TD8		TFT	
Laboratory										
Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-25	VOCMS20	1121_11	0.0362	90.5	0.0370	92.5	0.0403	101		
L733743-29	VOCMS20	1121_14	0.0378	94.5	0.0374	93.5	0.0400	100		
L733743-30	VOCMS20	1121_15	0.0374	93.6	0.0369	92.3	0.0403	101		
L733743-31	VOCMS20	1121_16	0.0358	89.5	0.0370	92.6	0.0398	99.6		
L733743-32	VOCMS20	1121_17	0.0366	91.5	0.0366	91.5	0.0403	101		
L733743-33	VOCMS20	1121_18	0.0371	92.7	0.0371	92.8	0.0405	101		
L733743-34	VOCMS20	1121_19	0.0370	92.5	0.0373	93.2	0.0408	102		
L733743-35	VOCMS20	1121_20	0.0366	91.5	0.0362	90.5	0.0400	99.9		
L733743-36	VOCMS20	1121_21	0.0365	91.3	0.0358	89.6	0.0399	99.8		
L733743-37	VOCMS20	1121_22	0.0385	96.3	0.0357	89.2	0.0393	98.2		
L733743-38	VOCMS20	1121_23	0.0374	93.6	0.0367	91.7	0.0400	100		
L733743-39	VOCMS20	1121_24	0.0372	93.1	0.0365	91.2	0.0400	100		
L733743-40	VOCMS20	1121_25	0.0374	93.4	0.0362	90.4	0.0400	99.9		
L733743-41	VOCMS20	1121_26	0.0374	93.4	0.0366	91.4	0.0400	100		
L733743-42	VOCMS20	1121_27	0.0383	95.9	0.0363	90.8	0.0396	99.1		
L733743-43	VOCMS20	1121_28	0.0367	91.9	0.0374	93.5	0.0401	100		
L733743-44	VOCMS20	1121_29	0.0367	91.7	0.0369	92.3	0.0401	100		
LCS WG754909	VOCMS20	1121_03	0.0366	91.6	0.0348	87.0	0.0394	98.4	0.0411	103
LCSD WG754909	VOCMS20	1121_04	0.0345	86.2	0.0349	87.3	0.0394	98.5	0.0421	105
MS WG754909	VOCMS20	1121_05	0.0353	88.3	0.0362	90.4	0.0399	99.8	0.0410	102
MSD WG754909	VOCMS20	1121_06	0.0373	93.3	0.0365	91.2	0.0407	102	0.0419	105
BLANK WG754909	VOCMS20	1121_09	0.0358	89.4	0.0361	90.2	0.0396	99.0	0.0420	105

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG754914
Analysis Date: 11/17/2014 2:20:00 AM Analyst: 644
Instrument ID: VOCMS14
Sample Numbers: L733743-45, -46, -47, -48, -49, -50, -51, -52, -53, -54, -55, -57, -58, -59, -60, -61, -62, -63, -64, -65

Surrogate Summary

		BFB		DFM		TD8		TFT		
Laboratory										
Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-45	VOCMS14	1116_45	0.0409	102	0.0425	106	0.0408	102		
L733743-46	VOCMS14	1116_46	0.0390	97.4	0.0421	105	0.0393	98.2		
L733743-47	VOCMS14	1116_47	0.0418	104	0.0420	105	0.0398	99.4		
L733743-48	VOCMS14	1116_48	0.0416	104	0.0428	107	0.0400	100		
L733743-49	VOCMS14	1116_49	0.0388	97.0	0.0403	101	0.0392	97.9		
L733743-50	VOCMS14	1116_50	0.0411	103	0.0420	105	0.0389	97.4		
L733743-51	VOCMS14	1116_51	0.0403	101	0.0428	107	0.0392	97.9		
L733743-52	VOCMS14	1116_52	0.0421	105	0.0445	111	0.0382	95.6		
L733743-53	VOCMS14	1116_53	0.0407	102	0.0443	111	0.0390	97.5		
L733743-54	VOCMS14	1116_54	0.0407	102	0.0409	102	0.0396	99.0		
L733743-55	VOCMS14	1116_55	0.0392	97.9	0.0406	102	0.0392	98.0		
L733743-57	VOCMS14	1116_56	0.0398	99.4	0.0406	101	0.0396	99.0		
L733743-58	VOCMS14	1116_57	0.0388	97.1	0.0426	107	0.0386	96.6		
L733743-59	VOCMS14	1116_58	0.0382	95.5	0.0425	106	0.0404	101		
L733743-60	VOCMS14	1116_59	0.0416	104	0.0407	102	0.0402	101		
L733743-61	VOCMS14	1116_60	0.0403	101	0.0412	103	0.0398	99.4		
L733743-62	VOCMS14	1116_61	0.0392	98.0	0.0428	107	0.0392	98.1		
L733743-63	VOCMS14	1116_62	0.0418	104	0.0436	109	0.0389	97.3		
L733743-64	VOCMS14	1116_43	0.0415	104	0.0405	101	0.0408	102		
L733743-65	VOCMS14	1116_44	0.0409	102	0.0404	101	0.0420	105		
LCS WG754914	VOCMS14	1116_36	0.0373	93.3	0.0404	101	0.0422	105	0.0404	101
LCSD WG754914	VOCMS14	1116_37	0.0387	96.8	0.0401	100	0.0412	103	0.0402	100
MS WG754914	VOCMS14	1116_38	0.0384	96.1	0.0423	106	0.0412	103	0.0393	98.4
MSD WG754914	VOCMS14	1116_39	0.0411	103	0.0415	104	0.0403	101	0.0399	99.8
BLANK WG754914	VOCMS14	1116_42	0.0410	103	0.0382	95.5	0.0410	102	0.0396	99.1

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG754915
Analysis Date: 11/19/2014 3:01:00 PM Analyst: 611
Instrument ID: VOCMS25
Sample Numbers: L733743-67, -68, -75, -76, -77, -78, -79, -80, -82, -83, -84, -85, -86

Surrogate Summary

		BFB		DFM		TD8		TFT		
Laboratory										
Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-67	VOCMS25	1119_11	0.0427	107	0.0416	104	0.0418	104		
L733743-68	VOCMS25	1119_12	0.0422	105	0.0410	103	0.0415	104		
L733743-75	VOCMS25	1119_19	0.0424	106	0.0411	103	0.0423	106		
L733743-76	VOCMS25	1119_10	0.0431	108	0.0415	104	0.0414	103		
L733743-77	VOCMS25	1119_20	0.0425	106	0.0412	103	0.0421	105		
L733743-78	VOCMS25	1119_21	0.0432	108	0.0402	100	0.0423	106		
L733743-79	VOCMS25	1119_22	0.0421	105	0.0409	102	0.0410	102		
L733743-80	VOCMS25	1119_23	0.0428	107	0.0409	102	0.0411	103		
L733743-82	VOCMS25	1119_25	0.0427	107	0.0397	99.2	0.0421	105		
L733743-83	VOCMS25	1119_26	0.0425	106	0.0398	99.5	0.0407	102		
L733743-84	VOCMS25	1119_27	0.0437	109	0.0401	100	0.0418	104		
L733743-85	VOCMS25	1119_28	0.0440	110	0.0398	99.4	0.0420	105		
L733743-86	VOCMS25	1119_29	0.0428	107	0.0396	99.0	0.0421	105		
LCS WG754915	VOCMS25	1119_03	0.0426	107	0.0412	103	0.0425	106	0.0435	109
LCSD WG754915	VOCMS25	1119_04	0.0427	107	0.0412	103	0.0414	104	0.0419	105
MS WG754915	VOCMS25	1119_06	0.0423	106	0.0415	104	0.0411	103	0.0426	106
MSD WG754915	VOCMS25	1119_07	0.0437	109	0.0411	103	0.0415	104	0.0428	107
BLANK WG754915	VOCMS25	1119_09	0.0427	107	0.0407	102	0.0419	105	0.0428	107

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
Project No: TX000836.0008.00004 Matrix: Water - mg/L
Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
Collection Date: 11/11/2014 Analytic Batch: WG754916
Analysis Date: 11/22/2014 3:10:00 AM Analyst: 644
Instrument ID: VOCMS7
Sample Numbers: L733743-66, -87, -88, -89, -90, -91, -92, -93, -94, -95, -96, -97, -98, -99, -100, -101, -102, -103, -104, -105

Surrogate Summary

			BFB		DFM		TD8		TFT	
Laboratory										
Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-100	VOCMS7	1121_41	0.0408	102	0.0388	96.9	0.0407	102		
L733743-101	VOCMS7	1121_42	0.0410	102	0.0378	94.5	0.0402	101		
L733743-102	VOCMS7	1121_43	0.0409	102	0.0382	95.5	0.0400	100		
L733743-103	VOCMS7	1121_44	0.0419	105	0.0382	95.4	0.0399	99.8		
L733743-104	VOCMS7	1121_45	0.0405	101	0.0380	95.1	0.0404	101		
L733743-105	VOCMS7	1121_46	0.0405	101	0.0380	95.1	0.0401	100		
L733743-66	VOCMS7	1121_47	0.0409	102	0.0381	95.3	0.0404	101		
L733743-87	VOCMS7	1121_48	0.0419	105	0.0379	94.8	0.0400	100		
L733743-88	VOCMS7	1121_49	0.0409	102	0.0384	96.1	0.0403	101		
L733743-89	VOCMS7	1121_39	0.0413	103	0.0383	95.6	0.0399	99.6		
L733743-90	VOCMS7	1121_50	0.0410	103	0.0378	94.5	0.0412	103		
L733743-91	VOCMS7	1121_51	0.0415	104	0.0374	93.6	0.0401	100		
L733743-92	VOCMS7	1121_52	0.0406	101	0.0370	92.4	0.0407	102		
L733743-93	VOCMS7	1121_53	0.0410	103	0.0382	95.5	0.0406	101		
L733743-94	VOCMS7	1121_54	0.0416	104	0.0384	95.9	0.0401	100		
L733743-95	VOCMS7	1121_55	0.0418	104	0.0376	94.0	0.0398	99.6		
L733743-96	VOCMS7	1121_56	0.0417	104	0.0376	93.9	0.0397	99.3		
L733743-97	VOCMS7	1121_57	0.0409	102	0.0386	96.5	0.0408	102		
L733743-98	VOCMS7	1121_58	0.0415	104	0.0379	94.9	0.0410	103		
L733743-99	VOCMS7	1121_40	0.0409	102	0.0377	94.3	0.0403	101		
LCS WG754916	VOCMS7	1121_32	0.0411	103	0.0387	96.7	0.0406	101	0.0430	108
LCSD WG754916	VOCMS7	1121_33	0.0414	104	0.0379	94.7	0.0406	101	0.0429	107
MS WG754916	VOCMS7	1121_34	0.0407	102	0.0376	93.9	0.0409	102	0.0434	109
MSD WG754916	VOCMS7	1121_35	0.0408	102	0.0382	95.6	0.0404	101	0.0432	108
BLANK WG754916	VOCMS7	1121_38	0.0408	102	0.0380	95.0	0.0401	100	0.0436	109

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B

Project No: TX000836.0008.00004

Matrix: Water - mg/L

Project: Navajo Refining Company - Artesia, NM

EPA ID: TN00003

Collection Date: 11/11/2014

Analytic Batch: WG754917

Analysis Date: 11/19/2014 3:06:00 PM

Analyst: 644

Instrument ID: VOCMS30

Sample Numbers: L733743-106, -107, -108, -109, -111, -112, -113, -114, -115, -116, -117, -118, -119, -120, -121, -122, -123, -124, -125

Surrogate Summary

			BFB		DFM		TD8		TFT	
Laboratory	Sample ID	Instrument File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
	L733743-106 50x	VOCMS30 1119_13	0.0450	113	0.0392	98.1	0.0421	105		
	L733743-107 10x	VOCMS30 1119_14	0.0447	112	0.0375	93.7	0.0414	104		
	L733743-108	VOCMS30 1119_15	0.0443	111	0.0394	98.4	0.0419	105		
	L733743-109 50x	VOCMS30 1119_16	0.0438	110	0.0384	95.9	0.0417	104		
	L733743-111 250x	VOCMS30 1119_18	0.0445	111	0.0391	97.8	0.0416	104		
	L733743-112 10x	VOCMS30 1119_19	0.0450	112	0.0391	97.7	0.0413	103		
	L733743-113	VOCMS30 1119_20	0.0443	111	0.0395	98.7	0.0422	105		
	L733743-114 10x	VOCMS30 1119_21	0.0442	111	0.0373	93.3	0.0422	106		
	L733743-115	VOCMS30 1119_12	0.0436	109	0.0387	96.6	0.0422	105		
	L733743-116	VOCMS30 1119_22	0.0435	109	0.0391	97.6	0.0413	103		
	L733743-117	VOCMS30 1119_23	0.0443	111	0.0395	98.8	0.0428	107		
	L733743-118	VOCMS30 1119_24	0.0448	112	0.0361	90.3	0.0419	105		
	L733743-119	VOCMS30 1119_25	0.0436	109	0.0392	98.1	0.0416	104		
	L733743-120	VOCMS30 1119_26	0.0440	110	0.0399	99.7	0.0416	104		
	L733743-121	VOCMS30 1119_27	0.0423	106	0.0392	98.0	0.0415	104		
	L733743-122	VOCMS30 1119_28	0.0437	109	0.0395	98.8	0.0410	102		
	L733743-123	VOCMS30 1119_29	0.0436	109	0.0395	98.6	0.0415	104		
	L733743-124	VOCMS30 1119_30	0.0449	112	0.0395	98.7	0.0416	104		
	L733743-125	VOCMS30 1119_31	0.0462	115	0.0391	97.9	0.0413	103		
	LCS WG754917	VOCMS30 1119_05	0.0443	111	0.0388	97.1	0.0415	104	0.0426	106
	LCSD WG754917	VOCMS30 1119_07	0.0454	113	0.0392	97.9	0.0416	104	0.0430	107
	MS WG754917	VOCMS30 1119_08	0.0437	109	0.0386	96.5	0.0414	104	0.0427	107
	MSD WG754917	VOCMS30 1119_09	0.0434	108	0.0389	97.4	0.0418	104	0.0424	106
	BLANK WG754917	VOCMS30 1119_11	0.0436	109	0.0388	97.1	0.0409	102	0.0428	107

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG754918
 Analysis Date: 11/20/2014 5:53:00 AM Analyst: 644
 Instrument ID: VOCMS2
 Sample Numbers: L733743-126, -127, -128, -129, -130, -131, -132, -133, -134, -135, -136, -137, -138, -139, -140, -141

Surrogate Summary

		BFB			DFM		TD8		TFT	
Laboratory										
Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-126	VOCMS2	1120_10	0.0398	99.6	0.0401	100	0.0413	103		
L733743-127	VOCMS2	1120_11	0.0372	93.1	0.0411	103	0.0418	105		
L733743-128	VOCMS2	1120_12	0.0379	94.9	0.0423	106	0.0411	103		
L733743-129	VOCMS2	1120_13	0.0393	98.2	0.0378	94.4	0.0411	103		
L733743-130	VOCMS2	1120_14	0.0377	94.2	0.0401	100	0.0415	104		
L733743-131	VOCMS2	1120_15	0.0388	96.9	0.0365	91.3	0.0419	105		
L733743-132	VOCMS2	1120_16	0.0379	94.7	0.0395	98.9	0.0417	104		
L733743-133	VOCMS2	1120_17	0.0388	97.1	0.0397	99.3	0.0417	104		
L733743-134	VOCMS2	1120_18	0.0381	95.3	0.0412	103	0.0418	104		
L733743-135	VOCMS2	1120_19	0.0384	96.1	0.0370	92.6	0.0417	104		
L733743-136	VOCMS2	1120_20	0.0378	94.4	0.0396	99.1	0.0415	104		
L733743-137	VOCMS2	1120_21	0.0395	98.9	0.0371	92.7	0.0412	103		
L733743-138	VOCMS2	1120_22	0.0394	98.5	0.0378	94.5	0.0413	103		
L733743-139	VOCMS2	1120_23	0.0394	98.5	0.0374	93.4	0.0415	104		
L733743-140	VOCMS2	1120_24	0.0383	95.8	0.0375	93.8	0.0419	105		
L733743-141	VOCMS2	1120_25	0.0373	93.3	0.0369	92.1	0.0425	106		
BLANK WG754918	VOCMS2	1120_09-2	0.0382	95.5	0.0396	99.0	0.0416	104	0.0393	98.1
LCS WG754918	VOCMS2	1120_03-2	0.0365	91.2	0.0417	104	0.0416	104	0.0399	99.8
LCSD WG754918	VOCMS2	1120_04-2	0.0366	91.5	0.0417	104	0.0410	103	0.0396	99.0
MS WG754918	VOCMS2	1120_06-2	0.0367	91.8	0.0411	103	0.0423	106	0.0407	102
MSD WG754918	VOCMS2	1120_07-2	0.0375	93.7	0.0421	105	0.0422	105	0.0394	98.4

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 **Analytic Batch: WG754919**
 Analysis Date: 11/21/2014 10:42:00 PM Analyst: 644
 Instrument ID: VOCMS13
 Sample Numbers: L733743-146, -147, -149, -151, -152, -153, -154, -155, -156, -157, -161, -162

Surrogate Summary

		BFB		DFM		TD8		TFT		
Laboratory										
Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-146	VOCMS13	1121_17	0.0402	101	0.0386	96.5	0.0396	98.9		
L733743-147	VOCMS13	1121_18	0.0398	99.4	0.0395	98.8	0.0399	99.8		
L733743-149	VOCMS13	1121_20	0.0409	102	0.0391	97.8	0.0396	99.0		
L733743-151	VOCMS13	1121_22	0.0407	102	0.0391	97.6	0.0398	99.5		
L733743-152	VOCMS13	1121_23	0.0420	105	0.0381	95.2	0.0402	100		
L733743-153	VOCMS13	1121_24	0.0399	99.9	0.0402	100	0.0399	99.7		
L733743-154	VOCMS13	1121_25	0.0400	100	0.0411	103	0.0399	99.8		
L733743-155	VOCMS13	1121_26	0.0408	102	0.0418	104	0.0396	99.0		
L733743-156	VOCMS13	1121_16	0.0401	100	0.0405	101	0.0399	99.8		
L733743-157	VOCMS13	1121_27	0.0406	101	0.0387	96.7	0.0396	99.1		
L733743-161	VOCMS13	1121_11	0.0408	102	0.0466	116	0.0400	100		
L733743-162	VOCMS13	1121_12	0.0402	100	0.0455	114	0.0400	100		
LCS WG754919	VOCMS13	1121_04	0.0401	100	0.0416	104	0.0405	101	0.0405	101
LCSD WG754919	VOCMS13	1121_05	0.0387	96.7	0.0401	100	0.0402	101	0.0409	102
MS WG754919	VOCMS13	1121_06	0.0390	97.6	0.0424	106	0.0400	99.9	0.0395	98.8
MSD WG754919	VOCMS13	1121_07	0.0405	101	0.0411	103	0.0399	99.7	0.0411	103
BLANK WG754919	VOCMS13	1121_10	0.0401	100	0.0403	101	0.0402	101	0.0416	104

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755340
Analysis Date:	11/22/2014 12:20:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12		

Surrogate Summary

		BFB		DFM		TD8		TFT		
Laboratory										
Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-06	VOCMS25	1121_45	0.0429	107	0.0395	98.7	0.0424	106		
L733743-07	VOCMS25	1121_46	0.0432	108	0.0388	97.1	0.0420	105		
L733743-08	VOCMS25	1121_47	0.0437	109	0.0388	96.9	0.0416	104		
L733743-09	VOCMS25	1121_48	0.0432	108	0.0388	97.0	0.0415	104		
L733743-10	VOCMS25	1121_49	0.0430	107	0.0399	99.6	0.0420	105		
L733743-11	VOCMS25	1121_50	0.0429	107	0.0385	96.2	0.0417	104		
L733743-12	VOCMS25	1121_51	0.0433	108	0.0384	96.1	0.0422	106		
LCS WG755340	VOCMS25	1121_33	0.0427	107	0.0375	93.8	0.0418	104	0.0446	111
LCSD WG755340	VOCMS25	1121_34	0.0426	107	0.0369	92.3	0.0417	104	0.0441	110
MS WG755340	VOCMS25	1121_36	0.0431	108	0.0368	92.0	0.0421	105	0.0449	112
MSD WG755340	VOCMS25	1121_37	0.0435	109	0.0373	93.1	0.0408	102	0.0441	110
BLANK WG755340	VOCMS25	1121_39	0.0425	106	0.0379	94.8	0.0421	105	0.0440	110

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755673
Analysis Date:	11/21/2014 8:51:00 AM	Analyst:	611
Instrument ID:	VOCMS25		
Sample Numbers:	L733743-106, -107, -110, -115		

Surrogate Summary

		BFB			DFM		TD8		TFT	
Laboratory										
Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-106 500x	VOCMS25	1121_13	0.0438	109	0.0373	93.2	0.0413	103		
L733743-107 200x	VOCMS25	1121_14	0.0435	109	0.0380	95.0	0.0416	104		
L733743-110 25x	VOCMS25	1121_15	0.0438	109	0.0384	96.1	0.0410	103		
L733743-115 10x	VOCMS25	1121_16	0.0424	106	0.0379	94.9	0.0414	103		
BLANK WG755673	VOCMS25	1121_10-2	0.0434	109	0.0384	95.9	0.0407	102	0.0446	112
LCS WG755673	VOCMS25	1121_04-2	0.0421	105	0.0379	94.7	0.0411	103	0.0452	113
LCSD WG755673	VOCMS25	1121_06-2	0.0429	107	0.0366	91.5	0.0424	106	0.0445	111
MS WG755673	VOCMS25	1121_07-2	0.0425	106	0.0378	94.6	0.0414	103	0.0451	113
MSD WG755673	VOCMS25	1121_08-2	0.0428	107	0.0372	93.0	0.0412	103	0.0441	110

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: TX000836.0008.00004 Matrix: Water - mg/L
 Project: Navajo Refining Company - Artesia, NM EPA ID: TN00003
 Collection Date: 11/11/2014 Analytic Batch: WG755736
 Analysis Date: 11/20/2014 4:24:00 PM Analyst: 644
 Instrument ID: VOCMS6
 Sample Numbers: L733743-69, -70, -71, -72, -73, -74, -81, -114, -116, -118, -119, -142, -143, -144, -145

Surrogate Summary

			BFB		DFM		TD8		TFT	
Laboratory										
Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-114	VOCMS6	1120_21	0.0379	94.7	0.0425	106	0.0407	102		
L733743-142	VOCMS6	1120_25	0.0385	96.4	0.0453	113	0.0421	105		
L733743-143	VOCMS6	1120_26	0.0382	95.4	0.0449	112	0.0416	104		
L733743-144	VOCMS6	1120_27	0.0368	91.9	0.0445	111	0.0408	102		
L733743-145	VOCMS6	1120_28	0.0390	97.6	0.0400	100	0.0407	102		
L733743-69	VOCMS6	1120_29	0.0385	96.1	0.0400	100	0.0410	102		
L733743-70	VOCMS6	1120_30	0.0372	92.9	0.0401	100	0.0410	103		
L733743-71	VOCMS6	1120_31	0.0376	94.0	0.0401	100	0.0417	104		
L733743-72	VOCMS6	1120_32	0.0382	95.5	0.0417	104	0.0413	103		
L733743-73	VOCMS6	1120_33	0.0387	96.8	0.0416	104	0.0407	102		
L733743-74	VOCMS6	1120_34	0.0385	96.2	0.0419	105	0.0408	102		
L733743-81	VOCMS6	1120_35	0.0374	93.4	0.0409	102	0.0417	104		
LCS WG755736	VOCMS6	1120_07	0.0381	95.3	0.0410	103	0.0403	101	0.0391	97.8
LCSD WG755736	VOCMS6	1120_08	0.0366	91.4	0.0393	98.3	0.0406	102	0.0393	98.3
LCS WG755736	VOCMS6	1120_09	0.0391	97.8	0.0420	105	0.0406	102	0.0405	101
LCSD WG755736	VOCMS6	1120_10	0.0385	96.2	0.0403	101	0.0411	103	0.0397	99.1
MS WG755736	VOCMS6	1120_12	0.0371	92.7	0.0426	106	0.0406	102	0.0394	98.5
MSD WG755736	VOCMS6	1120_13	0.0382	95.4	0.0416	104	0.0410	102	0.0407	102
MS WG755736	VOCMS6	1120_14	0.0353	88.1	0.0413	103	0.0402	101	0.0390	97.4
MSD WG755736	VOCMS6	1120_15	0.0370	92.6	0.0417	104	0.0405	101	0.0396	98.9
BLANK WG755736	VOCMS6	1120_17	0.0384	95.9	0.0395	98.7	0.0411	103	0.0400	100

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755901
Analysis Date:	11/21/2014 1:17:00 PM	Analyst:	644
Instrument ID:	VOCMS23		
Sample Numbers:	L733743-128, -135, -137, -138, -139, -142, -143, -144		

Surrogate Summary

			BFB		DFM		TD8		TFT	
Laboratory										
Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-128	VOCMS23	1121_18	0.0417	104	0.0383	95.7	0.0404	101		
L733743-135	VOCMS23	1121_19	0.0417	104	0.0388	97.0	0.0395	98.7		
L733743-137	VOCMS23	1121_20	0.0415	104	0.0381	95.3	0.0405	101		
L733743-138	VOCMS23	1121_21	0.0419	105	0.0379	94.8	0.0399	99.7		
L733743-139	VOCMS23	1121_22	0.0422	105	0.0391	97.8	0.0400	100		
L733743-142	VOCMS23	1121_23	0.0415	104	0.0380	95.0	0.0404	101		
L733743-143	VOCMS23	1121_24	0.0420	105	0.0373	93.1	0.0400	100		
L733743-144	VOCMS23	1121_25	0.0420	105	0.0394	98.5	0.0403	101		
LCS WG755901	VOCMS23	1121_03	0.0401	100	0.0387	96.7	0.0401	100	0.0439	110
LCSD WG755901	VOCMS23	1121_04	0.0411	103	0.0377	94.3	0.0403	101	0.0435	109
MS WG755901	VOCMS23	1121_07	0.0377	94.2	0.0374	93.4	0.0403	101	0.0433	108
MSD WG755901	VOCMS23	1121_08	0.0393	98.3	0.0385	96.1	0.0400	100	0.0443	111
BLANK WG755901	VOCMS23	1121_10	0.0415	104	0.0384	95.9	0.0399	99.7	0.0431	108

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756231
Analysis Date:	11/22/2014 7:17:00 PM	Analyst:	644
Instrument ID:	VOCMS30		
Sample Numbers:	L733743-13, -14, -15, -26, -27, -28		

Surrogate Summary

		BFB		DFM		TD8		TFT		
Laboratory										
Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-13	VOCMS30	1122_50	0.0436	109	0.0392	97.9	0.0409	102		
L733743-14	VOCMS30	1122_51	0.0436	109	0.0386	96.4	0.0411	103		
L733743-15	VOCMS30	1122_52	0.0441	110	0.0387	96.7	0.0410	102		
L733743-26	VOCMS30	1122_53	0.0420	105	0.0382	95.4	0.0410	103		
L733743-27	VOCMS30	1122_54	0.0419	105	0.0383	95.8	0.0406	101		
L733743-28	VOCMS30	1122_55	0.0431	108	0.0386	96.5	0.0405	101		
LCS WG756231	VOCMS30	1122_32	0.0431	108	0.0380	95.0	0.0408	102	0.0429	107
LCSD WG756231	VOCMS30	1122_33	0.0436	109	0.0384	96.0	0.0405	101	0.0427	107
MS WG756231	VOCMS30	1122_35	0.0420	105	0.0372	92.9	0.0409	102	0.0429	107
MSD WG756231	VOCMS30	1122_36	0.0418	105	0.0385	96.4	0.0413	103	0.0438	109
BLANK WG756231	VOCMS30	1122_38	0.0428	107	0.0388	97.0	0.0405	101	0.0423	106

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756371
Analysis Date:	11/23/2014 6:59:00 PM	Analyst:	644
Instrument ID:	VOCMS4		
Sample Numbers:	L733743-97		

Surrogate Summary

			BFB		DFM		TD8		TFT	
Laboratory										
Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-97	VOCMS4	1123_45	0.0372	93.1	0.0435	109	0.0423	106		
LCS WG756371	VOCMS4	1123_33	0.0394	98.5	0.0441	110	0.0417	104	0.0384	95.9
LCSD WG756371	VOCMS4	1123_34	0.0388	96.9	0.0443	111	0.0418	105	0.0381	95.3
BLANK WG756371	VOCMS4	1123_37	0.0390	97.5	0.0432	108	0.0419	105	0.0388	97.1
MS WG756371	VOCMS4	1123_41	0.0392	97.9	0.0435	109	0.0419	105	0.0380	94.9
MSD WG756371	VOCMS4	1123_42	0.0384	96.1	0.0445	111	0.0420	105	0.0384	95.9

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG756413
Analysis Date:	11/23/2014 10:50:00 PM	Analyst:	644
Instrument ID:	VOCMS6		
Sample Numbers:	L733743-148, -150, -158, -159, -160		

Surrogate Summary

			BFB		DFM		TD8		TFT	
Laboratory	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-148	VOCMS6	1123_49	0.0381	95.3	0.0413	103	0.0408	102		
L733743-150	VOCMS6	1123_50	0.0389	97.2	0.0402	100	0.0413	103		
L733743-158	VOCMS6	1123_47	0.0371	92.7	0.0419	105	0.0398	99.6		
L733743-159	VOCMS6	1123_51	0.0385	96.3	0.0410	102	0.0411	103		
L733743-160	VOCMS6	1123_52	0.0385	96.4	0.0410	102	0.0407	102		
LCS WG756413	VOCMS6	1123_39	0.0373	93.2	0.0413	103	0.0413	103	0.0408	102
MS WG756413	VOCMS6	1123_42	0.0388	97.1	0.0410	102	0.0406	102	0.0409	102
MSD WG756413	VOCMS6	1123_43	0.0375	93.7	0.0398	99.5	0.0412	103	0.0406	102
LCSD WG756413	VOCMS6	1123_44	0.0374	93.5	0.0409	102	0.0408	102	0.0409	102
BLANK WG756413	VOCMS6	1123_46	0.0381	95.3	0.0404	101	0.0403	101	0.0404	101

BFB --4-BROMOFLUOROBENZENE

True Value: 0.04 ppm Limits: 71 - 126

DFM --DIBROMOFLUOROMETHANE

True Value: 0.04 ppm Limits: 78.3 - 121

TD8 --TOLUENE-D8

True Value: 0.04 ppm Limits: 88.50 - 111

TFT --A,A,A-TRIFLUOROTOLUENE

True Value: 0.04 ppm Limits: 85 - 114

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755117
Analysis Date:	11/19/2014 3:32:00 PM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/17/2014
Sample Numbers:	L733743-43, -44, -45, -48, -49, -50, -51, -52, -53, -57, -59, -60, -63, -66, -69, -70, -71, -72, -73, -40		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	0.0228	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	< 0.0330	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6723	111	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.7428	116	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6723	111	1.7428	116	70 - 130	4.13	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755118
Analysis Date:	11/19/2014 10:20:00 PM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/17/2014
Sample Numbers:	L733743-100, -74, -75, -77, -80, -81, -82, -83, -84, -85, -88, -91, -92, -98, -101, -102, -103, -105, -106, -108		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	0.0419	
C28-C40 Oil Range		< 0.100	0.0209	
Extractable Petroleum Hydrocarbon		< 0.100	0.0498	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6116	107	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5672	104	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD	RPD Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6116	107	1.5672	104	70 - 130	2.79	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755119
Analysis Date:	11/19/2014 5:55:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-27, -28, -30, -31, -32, -33, -35, -36, -39, -37, -41, -42, -46, -47, -54, -55, -58, -61, -62, -67		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	< 0.0222	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	< 0.0330	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.7578	117	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.7339	116	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.7578	117	1.7339	116	70 - 130	1.37	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755121
Analysis Date:	11/18/2014 4:19:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-78, -79, -86, -87, -90, -93, -94, -95, -96, -97, -99, -104, -107, -111, -114, -117, -119, -120, -121, -125		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	< 0.0222	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	0.0385	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.4510	96.7	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5157	101	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD % RPD	Control RPD Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.4510	96.7	1.5157	101	70 - 130	4.37	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755122
Analysis Date:	11/18/2014 9:55:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-109, -110, -112, -113, -115, -116, -126, -127, -128, -129, -131, -132, -139, -141, -142, -143, -146, -147, -150		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	< 0.0222	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	< 0.0330	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5580	104	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.4915	99.4	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD	RPD Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5580	104	1.4915	99.4	70 - 130	4.36	20		

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015			Matrix:	Water - mg/L
Project No:	TX000836.0008.00004			EPA ID:	TN00003
Project:	Navajo Refining Company - Artesia, NM			Analytic Batch:	WG755177
Collection Date:	11/11/2014			Analyst:	546
Analysis Date:	11/19/2014 2:41:00 PM			Prep Date:	11/17/2014
Instrument ID:	SVGC27				
Sample Numbers:	L733743-01, -02, -03, -04, -05				

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		0.120	0.120	B
C28-C40 Oil Range		0.880	0.880	B
Extractable Petroleum Hydrocarbon		1.09	1.09	B

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6309	109	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5551	104	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6309	109	1.5551	104	70 - 130	4.75	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755478
Analysis Date:	11/20/2014 10:14:00 AM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/19/2014
Sample Numbers:	L733743-118, -122, -123, -124, -130, -133, -135, -136, -137, -138, -140, -144, -145, -148, -149, -150, -151, -152, -153		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	< 0.0222	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	< 0.0330	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.4476	96.5	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5040	100	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.4476	96.5	1.5040	100	70 - 130	3.82	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755492
Analysis Date:	11/21/2014 3:13:00 PM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/19/2014
Sample Numbers:	L733743-155, -156, -157, -160		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	< 0.0222	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	< 0.0330	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5454	103	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5877	106	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.5454	103	1.5877	106	70 - 130	2.7	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755545
Analysis Date:	11/20/2014 4:34:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/19/2014
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -29, -34, -38		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
C10-C28 Diesel Range		< 0.100	< 0.0222	
C28-C40 Oil Range		< 0.100	< 0.0118	
Extractable Petroleum Hydrocarbon		< 0.100	< 0.0330	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6645	111	70 - 130	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.7027	114	70 - 130	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD	RPD Qual
Extractable Petroleum Hydrocarbon	1	1.5	1.6645	111	1.7027	114	70 - 130	2.27	20	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755117
Analysis Date:	11/19/2014 3:32:00 PM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/17/2014
Sample Numbers:	L733743-43, -44, -45, -48, -49, -50, -51, -52, -53, -57, -59, -60, -63, -66, -69, -70, -71, -72, -73, -40		

Surrogate Summary

o-Terphenyl

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-40 40x	SVGC31	1121A_27	0.00	0.00 J7
L733743-43	SVGC31	1119_11	0.0260	130
L733743-44	SVGC31	1119_12	0.0262	131
L733743-45	SVGC31	1119_13	0.0271	136
L733743-48	SVGC31	1119_14	0.0252	126
L733743-49	SVGC31	1119_15	0.0254	127
L733743-50	SVGC31	1119_16	0.0261	131
L733743-51	SVGC31	1119_17	0.0272	136
L733743-52	SVGC31	1119_18	0.0267	133
L733743-53	SVGC31	1119_19	0.0284	142
L733743-57	SVGC31	1119_29	0.0273	136
L733743-59	SVGC31	1119_30	0.0262	131
L733743-60	SVGC31	1119_31	0.0279	139
L733743-63	SVGC31	1119_32	0.0279	140
L733743-66	SVGC31	1119_33	0.0269	135
L733743-69	SVGC31	1119_20	0.0260	130
L733743-70	SVGC31	1119_25	0.0298	149
L733743-71	SVGC31	1119_26	0.0225	113
L733743-72	SVGC31	1119_27	0.0204	102
L733743-73	SVGC31	1119_28	0.0273	136
BLANK WG755117	SVGC31	1119_05	0.0253	127
LCS WG755117	SVGC31	1119_06	0.0280	140
LCSD WG755117	SVGC31	1119_07	0.0286	143

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755118
Analysis Date:	11/19/2014 10:20:00 PM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/17/2014
Sample Numbers:	L733743-100, -74, -75, -77, -80, -81, -82, -83, -84, -85, -88, -91, -92, -98, -101, -102, -103, -105, -106, -108		

Surrogate Summary

o-Terphenyl

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-100	SVGC31	1119_34	0.0228	114
L733743-101 5x	SVGC31	1120_39	0.0220	110
L733743-102 5x	SVGC31	1120_40	0.0228	114
L733743-103 5x	SVGC31	1120_41	0.0231	116
L733743-105 5x	SVGC31	1120_42	0.0288	144
L733743-106 10x	SVGC31	1120_43	0.0151	75.6
L733743-108 5x	SVGC31	1120_44	0.0239	119
L733743-74 5x	SVGC31	1120_45	0.0223	111
L733743-75 5x	SVGC31	1120_46	0.0250	125
L733743-77 5x	SVGC31	1120_47	0.0239	120
L733743-80 5x	SVGC31	1120_58	0.0231	115
L733743-81 20x	SVGC31	1120_60	0.0279	140
L733743-82 5x	SVGC31	1120_59	0.0238	119
L733743-83 10x	SVGC31	1120_61	0.0242	121
L733743-84	SVGC31	1120_62	0.0231	115
L733743-85 5x	SVGC31	1120_48	0.0255	127
L733743-88 5x	SVGC31	1120_54	0.111	553 J1
L733743-91 5x	SVGC31	1120_55	0.0230	115
L733743-92 5x	SVGC31	1120_56	0.0217	108
L733743-98 10x	SVGC31	1120_57	0.0163	81.5
BLANK WG755118	SVGC31	1119_08	0.0269	134
LCS WG755118	SVGC31	1119_09	0.0264	132
LCSD WG755118	SVGC31	1119_10	0.0259	129

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755119
Analysis Date:	11/19/2014 5:55:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-27, -28, -30, -31, -32, -33, -35, -36, -39, -37, -41, -42, -46, -47, -54, -55, -58, -61, -62, -67		

Surrogate Summary

o-Terphenyl

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-27	SVGC27	1119_23	0.0243	121
L733743-28	SVGC27	1119_24	0.0230	115
L733743-30	SVGC27	1119_25	0.0249	124
L733743-31	SVGC27	1119_26	0.0225	113
L733743-32	SVGC27	1119_27	0.0235	118
L733743-33	SVGC27	1119_28	0.0239	120
L733743-35	SVGC27	1119_29	0.0255	128
L733743-36	SVGC27	1119_30	0.0283	142
L733743-37 20x	SVGC27	1121_22	0.00	0.00 J7
L733743-39 2x	SVGC27	1119_32	0.0253	127
L733743-41	SVGC27	1121_10	0.0233	117
L733743-42	SVGC27	1121_11	0.0240	120
L733743-46	SVGC27	1121_12	0.0240	120
L733743-47	SVGC27	1121_13	0.0235	117
L733743-54	SVGC27	1121_14	0.0237	118
L733743-55	SVGC27	1121_05	0.0243	121
L733743-58	SVGC27	1121_06	0.0239	120
L733743-61	SVGC27	1121_07	0.0247	123
L733743-62	SVGC27	1121_08	0.0248	124
L733743-67	SVGC27	1121_09	0.0248	124
BLANK WG755119	SVGC27	1119_09	0.0231	116
LCS WG755119	SVGC27	1119_10	0.0251	126
LCSD WG755119	SVGC27	1119_11	0.0237	119

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755121
Analysis Date:	11/18/2014 4:19:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-78, -79, -86, -87, -90, -93, -94, -95, -96, -97, -99, -104, -107, -111, -114, -117, -119, -120, -121, -125		

Surrogate Summary

o-Terphenyl

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-104	SVGC27	1118_12	0.0228	114
L733743-107	SVGC27	1118_13	0.0228	114
L733743-111	SVGC27	1118_14	0.0217	108
L733743-114	SVGC27	1118_15	0.0232	116
L733743-117	SVGC27	1118_16	0.0230	115
L733743-119	SVGC27	1118_17	0.0220	110
L733743-120	SVGC27	1118_18	0.0228	114
L733743-121	SVGC27	1118_19	0.0227	114
L733743-125	SVGC27	1118_20	0.0219	109
L733743-78	SVGC27	1118_21	0.0226	113
L733743-79	SVGC27	1118_26	0.0227	113
L733743-86	SVGC27	1118_27	0.0225	113
L733743-87	SVGC27	1118_28	0.0234	117
L733743-90	SVGC27	1118_29	0.0246	123
L733743-93	SVGC27	1118_30	0.0228	114
L733743-94	SVGC27	1118_31	0.0232	116
L733743-95	SVGC27	1118_32	0.0229	115
L733743-96	SVGC27	1118_33	0.0228	114
L733743-97	SVGC27	1118_34	0.0217	109
L733743-99	SVGC27	1118_35	0.0247	124
BLANK WG755121	SVGC27	1118_06	0.0226	113
LCS WG755121	SVGC27	1118_07	0.0229	115
LCSD WG755121	SVGC27	1118_08	0.0226	113

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755122
Analysis Date:	11/18/2014 9:55:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-109, -110, -112, -113, -115, -116, -126, -127, -128, -129, -131, -132, -139, -141, -142, -143, -146, -147, -158		

Surrogate Summary

o-Terphenyl

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-109	SVGC27	1118_40	0.0168	83.9
L733743-110	SVGC27	1118_41	0.0235	117
L733743-112	SVGC27	1118_42	0.0236	118
L733743-113	SVGC27	1118_43	0.0231	116
L733743-115	SVGC27	1118_44	0.0244	122
L733743-116	SVGC27	1118_45	0.0227	114
L733743-126	SVGC27	1118_46	0.0227	114
L733743-127	SVGC27	1118_47	0.0226	113
L733743-128	SVGC27	1118_48	0.0227	113
L733743-129	SVGC27	1118_49	0.0226	113
L733743-131	SVGC27	1118_54	0.0225	112
L733743-132	SVGC27	1118_55	0.0229	115
L733743-139 2x	SVGC27	1118_56	0.0145	72.5
L733743-141	SVGC27	1118_57	0.0225	112
L733743-142	SVGC27	1118_58	0.0234	117
L733743-143	SVGC27	1118_59	0.0210	105
L733743-146	SVGC27	1118_60	0.0235	118
L733743-147	SVGC27	1118_61	0.0237	118
L733743-158	SVGC27	1118_62	0.0235	118
L733743-159	SVGC27	1118_63	0.0233	117
BLANK WG755122	SVGC27	1118_09	0.0232	116
LCS WG755122	SVGC27	1118_10	0.0230	115
LCSD WG755122	SVGC27	1118_11	0.0225	112

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755177
Analysis Date:	11/19/2014 2:41:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/17/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Surrogate Summary

o-Terphenyl

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-01	SVGC27	1119_12	0.0236	118
L733743-02	SVGC27	1119_13	0.0230	115
L733743-03	SVGC27	1119_14	0.0229	114
L733743-04	SVGC27	1119_15	0.0231	116
L733743-05	SVGC27	1119_16	0.0220	110
BLANK WG755177	SVGC27	1119_05	0.0233	116
LCS WG755177	SVGC27	1119_06	0.0235	118
LCSD WG755177	SVGC27	1119_08	0.0232	116

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755478
Analysis Date:	11/20/2014 10:14:00 AM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/19/2014
Sample Numbers:	L733743-118, -122, -123, -124, -130, -133, -135, -136, -137, -138, -140, -144, -145, -148, -149, -150, -151, -152, -153		

Surrogate Summary

o-Terphenyl

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-118	SVGC31	1120_08	0.0257	128
L733743-122	SVGC31	1120_09	0.0232	116
L733743-123	SVGC31	1120_10	0.0233	117
L733743-124	SVGC31	1120_11	0.0239	119
L733743-130	SVGC31	1120_12	0.0249	124
L733743-133	SVGC31	1120_13	0.0271	135
L733743-135	SVGC31	1120_14	0.0233	116
L733743-136	SVGC31	1120_15	0.0216	108
L733743-137 2x	SVGC31	1120_16	0.0237	118
L733743-138	SVGC31	1120_17	0.0215	107
L733743-140 5x	SVGC31	1120_24	0.0297	148
L733743-144 5x	SVGC31	1120_25	0.0162	81.2
L733743-145 5x	SVGC31	1120_26	0.0208	104
L733743-148 5x	SVGC31	1120_27	0.0209	104
L733743-149 5x	SVGC31	1120_28	0.0193	96.7
L733743-150 2x	SVGC31	1120_29	0.0140	69.9
L733743-151 5x	SVGC31	1120_30	0.0228	114
L733743-152 5x	SVGC31	1120_31	0.0210	105
L733743-153 5x	SVGC31	1120_32	0.0232	116
L733743-154 5x	SVGC31	1120_33	0.0235	117
BLANK WG755478	SVGC31	1120_05	0.0239	120
LCS WG755478	SVGC31	1120_06	0.0233	116
LCSD WG755478	SVGC31	1120_07	0.0230	115

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755492
Analysis Date:	11/21/2014 3:13:00 PM	Analyst:	546
Instrument ID:	SVGC31	Prep Date:	11/19/2014
Sample Numbers:	L733743-155, -156, -157, -160		

Surrogate Summary

o-Terphenyl

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-155	SVGC31	1121A_08	0.0250	125
L733743-156	SVGC31	1121A_09	0.0249	125
L733743-157	SVGC31	1121A_10	0.0261	130
L733743-160	SVGC31	1121A_11	0.0261	131
BLANK WG755492	SVGC31	1121A_05	0.0252	126
LCS WG755492	SVGC31	1121A_06	0.0249	125
LCSD WG755492	SVGC31	1121A_07	0.0249	124

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Diesel Range Organics by Method 8015		
Project No:	TX000836.0008.00004	Matrix:	Water - mg/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755545
Analysis Date:	11/20/2014 4:34:00 PM	Analyst:	546
Instrument ID:	SVGC27	Prep Date:	11/19/2014
Sample Numbers:	L733743-06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -25, -26, -29, -34, -38		

Surrogate Summary

o-Terphenyl

Laboratory

Sample ID	Instrument	File ID	ppm	% Rec
L733743-06 1.17x	SVGC27	1120A_17	0.0264	113
L733743-07 1.17x	SVGC27	1120A_18	0.0279	119
L733743-08 1.11x	SVGC27	1120A_19	0.0265	119
L733743-09 1.11x	SVGC27	1120A_20	0.0268	121
L733743-10 1.11x	SVGC27	1120A_21	0.0254	114
L733743-11 1.11x	SVGC27	1120A_26	0.0261	118
L733743-12 1.11x	SVGC27	1120A_27	0.0260	117
L733743-13 1.11x	SVGC27	1120A_28	0.0279	126
L733743-14 1.11x	SVGC27	1120A_29	0.0274	123
L733743-15 1.11x	SVGC27	1120A_30	0.0269	121
L733743-25	SVGC27	1120A_31	0.0269	134
L733743-26	SVGC27	1120A_32	0.0198	99.1
L733743-29	SVGC27	1120A_33	0.0243	121
L733743-34 20x	SVGC27	1121_24	0.0236	118 J7
L733743-38	SVGC27	1120A_35	0.0246	123
BLANK WG755545	SVGC27	1120A_06	0.0255	127
LCS WG755545	SVGC27	1120A_07	0.0235	117
LCSD WG755545	SVGC27	1120A_08	0.0248	124

o-Terphenyl --O-TERPHENYL

True Value: 0.02 ppm Limits: 50 - 150

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754898
Analysis Date:	11/18/2014 9:10:00 AM	Analyst:	280
Instrument ID:	BNAMS4, BNAMS1	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1-Methylnaphthalene	90-12-0	< 1.00	< 0.330	
2-Methylnaphthalene	91-57-6	< 1.00	< 0.311	
Benzo(a)pyrene	50-32-8	< 1.00	< 0.340	
Naphthalene	91-20-3	< 1.00	< 0.372	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1-Methylnaphthalene	90-12-0	< 1.00	< 0.330	
2-Methylnaphthalene	91-57-6	< 1.00	< 0.311	
Benzo(a)pyrene	50-32-8	< 1.00	< 0.340	
Naphthalene	91-20-3	< 1.00	< 0.372	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755104
Analysis Date:	11/19/2014 6:54:00 AM	Analyst:	280
Instrument ID:	BNAMS2, BNAMS1	Prep Date:	11/17/2014
Sample Numbers:	L733743-10, -12, -13, -14, -15		

Method Blank

Analyte	CAS	RDL	MDL	Qualifier
1-Methylnaphthalene	90-12-0	< 1.00	< 0.330	
2-Methylnaphthalene	91-57-6	< 1.00	< 0.311	
Benzo(a)pyrene	50-32-8	< 1.00	< 0.340	
Naphthalene	91-20-3	< 1.00	< 0.372	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754898
Analysis Date:	11/18/2014 9:10:00 AM	Analyst:	280
Instrument ID:	BNAMS4, BNAMS1	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1-Methylnaphthalene	1	25	18.081	72.3	34.7 - 102	
2-Methylnaphthalene	1	25	16.022	64.1	33.8 - 98.6	
Benzo(a)pyrene	1	25	17.323	69.3	45.6 - 106	
Naphthalene	1	25	15.035	60.1	32.2 - 101	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1-Methylnaphthalene	1	25	18.568	74.3	34.7 - 102	
2-Methylnaphthalene	1	25	17.282	69.1	33.8 - 98.6	
Benzo(a)pyrene	1	25	22.042	88.2	45.6 - 106	
Naphthalene	1	25	15.689	62.8	32.2 - 101	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1-Methylnaphthalene	1	25	18.081	72.3	18.568	74.3	34.7 - 102	2.66	24.9	
2-Methylnaphthalene	1	25	16.022	64.1	17.282	69.1	33.8 - 98.6	7.57	24.2	
Benzo(a)pyrene	1	25	17.323	69.3	22.042	88.2	45.6 - 106	24	20	J3
Naphthalene	1	25	15.035	60.1	15.689	62.8	32.2 - 101	4.26	23.8	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1-Methylnaphthalene	1	25	22.635	90.5	34.7 - 102	
2-Methylnaphthalene	1	25	20.468	81.9	33.8 - 98.6	
Benzo(a)pyrene	1	25	24.050	96.2	45.6 - 106	
Naphthalene	1	25	18.791	75.2	32.2 - 101	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1-Methylnaphthalene	1	25	23.251	93	34.7 - 102	
2-Methylnaphthalene	1	25	20.565	82.3	33.8 - 98.6	
Benzo(a)pyrene	1	25	25.131	101	45.6 - 106	
Naphthalene	1	25	19.448	77.8	32.2 - 101	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
1-Methylnaphthalene	1	25	22.635	90.5	23.251	93	34.7 - 102	2.68	24.9	
2-Methylnaphthalene	1	25	20.468	81.9	20.565	82.3	33.8 - 98.6	0.48	24.2	
Benzo(a)pyrene	1	25	24.050	96.2	25.131	101	45.6 - 106	4.4	20	
Naphthalene	1	25	18.791	75.2	19.448	77.8	32.2 - 101	3.44	23.8	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755104
Analysis Date:	11/19/2014 6:54:00 AM	Analyst:	280
Instrument ID:	BNAMS2, BNAMS1	Prep Date:	11/17/2014
Sample Numbers:	L733743-10, -12, -13, -14, -15		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1-Methylnaphthalene	1	25	19.461	77.8	34.7 - 102	
2-Methylnaphthalene	1	25	17.107	68.4	33.8 - 98.6	
Benzo(a)pyrene	1	25	21.426	85.7	45.6 - 106	
Naphthalene	1	25	16.391	65.6	32.2 - 101	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1-Methylnaphthalene	1	25	20.402	81.6	34.7 - 102	
2-Methylnaphthalene	1	25	18.181	72.7	33.8 - 98.6	
Benzo(a)pyrene	1	25	21.895	87.6	45.6 - 106	
Naphthalene	1	25	17.057	68.2	32.2 - 101	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
1-Methylnaphthalene	1	25	19.461	77.8	20.402	81.6	34.7 - 102	4.72	24.9	
2-Methylnaphthalene	1	25	17.107	68.4	18.181	72.7	33.8 - 98.6	6.09	24.2	
Benzo(a)pyrene	1	25	21.426	85.7	21.895	87.6	45.6 - 106	2.17	20	
Naphthalene	1	25	16.391	65.6	17.057	68.2	32.2 - 101	3.99	23.8	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Matrix Spike / Matrix Spike Duplicate

L733682-02

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1-Methylnaphthalene	1	25	0.0	21.871	87.5	23.640	94.6	10 - 149		7.77	26	
2-Methylnaphthalene	1	25	0.0	19.779	79.1	21.028	84.1	24.6 - 114		6.12	23.7	
Benzo(a)pyrene	1	25	0.0	23.981	95.9	24.835	99.3	23.3 - 135		3.5	20	
Naphthalene	1	25	0.2125	18.128	71.7	19.004	75.2	20.2 - 114		4.72	27.5	

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754898
Analysis Date:	11/18/2014 9:10:00 AM	Analyst:	280
Instrument ID:	BNAMS4	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Internal Standard Response and Retention Time Summary

File ID: 1117B_02

Analyzed: 11/18/14 053000

	IS4		ACE		CHR		NAP	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	96540	5.44	266855	8.62	770545	13.14	365366	6.73
Upper Limit	193000	5.94	534000	9.12	1540000	13.64	731000	7.23
Lower Limit	48300	4.94	133000	8.12	385000	12.64	183000	6.23
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-01	74404	5.44	186785	8.62	528573	13.14	264209	6.72
L733743-02	73011	5.44	201251	8.62	473283	13.14	273646	6.72
L733743-03	69680	5.44	178445	8.62	474231	13.14	275419	6.72
L733743-04	72736	5.44	189866	8.62	491429	13.14	271773	6.72
L733743-05	74019	5.44	213587	8.61	519828	13.14	281988	6.72
LCSD WG754898	74200	5.44	200135	8.62	498098	13.14	297132	6.72
LCS WG754898	83320	5.44	217302	8.62	551627	13.14	311912	6.72
BLANK WG754898	73380	5.44	203265	8.62	494260	13.14	277870	6.72

Legend:

IS4 -- 1,4-Dichlorobenzene-d4

ACE -- Acenaphthene-d10

CHR -- Chrysene-d12

NAP -- Naphthalene-d8

PER -- Perylene-d12

PHEN -- Phenanthrene-d10

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754898
Analysis Date:	11/18/2014 9:10:00 AM	Analyst:	280
Instrument ID:	BNAMS4	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Internal Standard Response and Retention Time Summary

File ID: 1117B_02

Analyzed: 11/18/14 053000

	IS4		PER		PHEN	
	Response	RT	Response	RT	Response	RT
12 Hr. Std	96540	5.44	846499	14.64	539273	10.25
Upper Limit	193000	5.94	1690000	15.14	1080000	10.75
Lower Limit	48300	4.94	423000	14.14	270000	9.75
Sample ID	Response	RT	Response	RT	Response	RT
L733743-01	74404	5.44	564935	14.64	379064	10.25
L733743-02	73011	5.44	614831	14.64	376765	10.25
L733743-03	69680	5.44	577623	14.64	367544	10.25
L733743-04	72736	5.44	602257	14.64	383338	10.25
L733743-05	74019	5.44	578018	14.64	383772	10.25
LCSD WG754898	74200	5.44	621534	14.64	395763	10.25
LCS WG754898	83320	5.44	669359	14.64	460354	10.25
BLANK WG754898	73380	5.44	600596	14.64	400355	10.25

Legend:

IS4 -- 1,4-Dichlorobenzene-d4
ACE -- Acenaphthene-d10
CHR -- Chrysene-d12
NAP -- Naphthalene-d8
PER -- Perylene-d12
PHEN -- Phenanthrene-d10

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Internal Standard Response and Retention Time Summary

File ID: 1117A_03

Analyzed: 11/18/14 005900

	IS4		ACE		CHR		NAP	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	112097	5.44	300417	8.57	665559	13.04	473029	6.70
Upper Limit	224000	5.94	601000	9.07	1330000	13.54	946000	7.20
Lower Limit	56000	4.94	150000	8.07	333000	12.54	237000	6.20
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-06	100539	5.44	262737	8.57	608351	13.03	415952	6.70
L733743-07	102421	5.44	278292	8.57	641628	13.03	445774	6.70
L733743-08	95231	5.44	247725	8.57	574015	13.03	404539	6.70
L733743-09	102882	5.44	271158	8.57	615366	13.03	442411	6.70
L733743-11	102559	5.44	267900	8.57	608372	13.03	430876	6.70
MSD WG754905	92918	5.44	236277	8.57	555155	13.03	383025	6.70
MS WG754905	104786	5.44	281902	8.57	654480	13.03	447784	6.70
LCSD WG754905	89694	5.44	237027	8.57	527371	13.03	378266	6.70
LCS WG754905	104645	5.44	283976	8.57	650136	13.03	443346	6.70
BLANK WG754905	96078	5.44	258759	8.57	576116	13.03	408222	6.70

Legend:

IS4 -- 1,4-Dichlorobenzene-d4

ACE -- Acenaphthene-d10

CHR -- Chrysene-d12

NAP -- Naphthalene-d8

PER -- Perylene-d12

PHEN -- Phenanthrene-d10

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Internal Standard Response and Retention Time Summary

File ID: 1117A_03

Analyzed: 11/18/14 005900

	IS4		PER		PHEN	
	Response	RT	Response	RT	Response	RT
12 Hr. Std	112097	5.44	855919	14.52	554212	10.18
Upper Limit	224000	5.94	1710000	15.02	1110000	10.68
Lower Limit	56000	4.94	428000	14.02	277000	9.68
Sample ID	Response	RT	Response	RT	Response	RT
L733743-06	100539	5.44	797050	14.52	481435	10.18
L733743-07	102421	5.44	793667	14.52	508084	10.18
L733743-08	95231	5.44	698344	14.52	446087	10.17
L733743-09	102882	5.44	766721	14.52	499705	10.18
L733743-11	102559	5.44	754632	14.51	493537	10.18
MSD WG754905	92918	5.44	668943	14.52	441857	10.18
MS WG754905	104786	5.44	817970	14.51	509281	10.18
LCSD WG754905	89694	5.44	661787	14.52	427899	10.18
LCS WG754905	104645	5.44	812683	14.52	519947	10.18
BLANK WG754905	96078	5.44	730647	14.52	465339	10.18

Legend:

IS4 -- 1,4-Dichlorobenzene-d4
ACE -- Acenaphthene-d10
CHR -- Chrysene-d12
NAP -- Naphthalene-d8
PER -- Perylene-d12
PHEN -- Phenanthrene-d10

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755104
Analysis Date:	11/19/2014 6:54:00 AM	Analyst:	280
Instrument ID:	BNAMS2	Prep Date:	11/17/2014
Sample Numbers:	L733743-10, -12, -13, -14, -15		

Internal Standard Response and Retention Time Summary

File ID: 1118A_02

Analyzed: 11/19/14 014700

	IS4		ACE		CHR		NAP	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hr. Std	43686	4.95	112389	8.01	267019	12.42	157972	6.17
Upper Limit	87400	5.45	225000	8.51	534000	12.92	316000	6.67
Lower Limit	21800	4.45	56200	7.51	134000	11.92	79000	5.67
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
L733743-10	32135	4.95	96347	8.01	195160	12.42	132104	6.17
L733743-12	34678	4.95	91303	8.01	179120	12.42	129866	6.17
L733743-13	33178	4.95	88811	8.01	180830	12.41	119470	6.17
L733743-14	33236	4.95	88092	8.01	186318	12.42	129377	6.17
L733743-15	33389	4.95	91827	8.01	176376	12.42	122828	6.17
LCSD WG755104	38127	4.95	97307	8.01	222074	12.42	138847	6.17
LCS WG755104	38217	4.95	97172	8.01	219425	12.42	138091	6.18
BLANK WG755104	36650	4.95	96984	8.01	201813	12.42	136842	6.18

Legend:

IS4 -- 1,4-Dichlorobenzene-d4

ACE -- Acenaphthene-d10

CHR -- Chrysene-d12

NAP -- Naphthalene-d8

PER -- Perylene-d12

PHEN -- Phenanthrene-d10

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755104
Analysis Date:	11/19/2014 6:54:00 AM	Analyst:	280
Instrument ID:	BNAMS2	Prep Date:	11/17/2014
Sample Numbers:	L733743-10, -12, -13, -14, -15		

Internal Standard Response and Retention Time Summary

File ID: 1118A_02

Analyzed: 11/19/14 014700

	IS4		PER		PHEN	
	Response	RT	Response	RT	Response	RT
12 Hr. Std	43686	4.95	312215	13.85	222028	9.60
Upper Limit	87400	5.45	624000	14.35	444000	10.10
Lower Limit	21800	4.45	156000	13.35	111000	9.10
Sample ID	Response	RT	Response	RT	Response	RT
L733743-10	32135	4.95	221482	13.85	179867	9.59
L733743-12	34678	4.95	213542	13.85	173032	9.59
L733743-13	33178	4.95	199642	13.85	164979	9.59
L733743-14	33236	4.95	226509	13.85	176573	9.59
L733743-15	33389	4.95	216036	13.85	171536	9.59
LCSD WG755104	38127	4.95	260298	13.85	187967	9.59
LCS WG755104	38217	4.95	248368	13.85	187882	9.59
BLANK WG755104	36650	4.95	231233	13.85	182763	9.59

Legend:

IS4 -- 1,4-Dichlorobenzene-d4
ACE -- Acenaphthene-d10
CHR -- Chrysene-d12
NAP -- Naphthalene-d8
PER -- Perylene-d12
PHEN -- Phenanthrene-d10

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754898
Analysis Date:	11/18/2014 9:10:00 AM	Analyst:	280
Instrument ID:	BNAMS4	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Surrogate Summary

		TBP			FBP		2FP		NBZ	
Laboratory										
Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-01	BNAMS4	1117B_12	0.0155	77.4	0.00762	76.2	0.00836	41.8	0.00739	73.9
L733743-02	BNAMS4	1117B_13	0.0172	86.2	0.00761	76.1	0.0113	56.6	0.00859	85.9
L733743-03	BNAMS4	1117B_14	0.0164	82.1	0.00820	82.0	0.0108	53.9	0.00727	72.7
L733743-04	BNAMS4	1117B_15	0.0145	72.3	0.00818	81.8	0.00243	12.1	0.00726	72.6
L733743-05	BNAMS4	1117B_16	0.0150	75.0	0.00715	71.5	0.0109	54.6	0.00747	74.7
LCS WG754898	BNAMS4	1117B_07	0.0131	65.4	0.00672	67.2	0.0104	51.8	0.00694	69.4
LCSD WG754898	BNAMS4	1117B_08	0.0154	77.1	0.00728	72.8	0.0112	56.0	0.00713	71.3
BLANK WG754898	BNAMS4	1117B_09	0.0147	73.3	0.00726	72.6	0.0107	53.5	0.00699	69.9

TBP --2,4,6-TRIBROMOPHENOL

True Value: 0.02 ppm Limits: 11.2 - 130

FBP --2-FLUOROBIPHENYL

True Value: 0.01 ppm Limits: 29.5 - 131

2FP --2-FLUOROPHENOL

True Value: 0.02 ppm Limits: 10 - 77.9

NBZ --NITROBENZENE-D5

True Value: 0.01 ppm Limits: 21.8 - 123

TPH --P-TERPHENYL-D14

True Value: 0.01 ppm Limits: 29.3 - 137

PHL --PHENOL-D5

True Value: 0.02 ppm Limits: 5 - 70.1

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754898
Analysis Date:	11/18/2014 9:10:00 AM	Analyst:	280
Instrument ID:	BNAMS4	Prep Date:	11/15/2014
Sample Numbers:	L733743-01, -02, -03, -04, -05		

Surrogate Summary

		TPH		PHL	
Laboratory					
Sample ID	Instrument	File ID	ppm	% Rec	ppm % Rec
L733743-01	BNAMS4	1117B_12	0.00697	69.7	0.00640 32.0
L733743-02	BNAMS4	1117B_13	0.00777	77.7	0.00813 40.6
L733743-03	BNAMS4	1117B_14	0.00880	88.0	0.00757 37.8
L733743-04	BNAMS4	1117B_15	0.00847	84.7	0.00362 18.1
L733743-05	BNAMS4	1117B_16	0.00749	74.9	0.00839 41.9
LCS WG754898	BNAMS4	1117B_07	0.00716	71.6	0.00700 35.0
LCSD WG754898	BNAMS4	1117B_08	0.00804	80.4	0.00731 36.6
BLANK WG754898	BNAMS4	1117B_09	0.00736	73.6	0.00806 40.3

TBP --2,4,6-TRIBROMOPHENOL

True Value: 0.02 ppm Limits: 11.2 - 130

FBP --2-FLUOROBIPHENYL

True Value: 0.01 ppm Limits: 29.5 - 131

2FP --2-FLUOROPHENOL

True Value: 0.02 ppm Limits: 10 - 77.9

NBZ --NITROBENZENE-D5

True Value: 0.01 ppm Limits: 21.8 - 123

TPH --P-TERPHENYL-D14

True Value: 0.01 ppm Limits: 29.3 - 137

PHL --PHENOL-D5

True Value: 0.02 ppm Limits: 5 - 70.1

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Surrogate Summary

Laboratory			TBP		FBP		2FP		NBZ	
	Sample ID	Instrument File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
	L733743-06	BNAMS11 1117A_16	0.0156	78.1	0.00885	88.5	0.00974	48.7	0.00715	71.5
	L733743-07	BNAMS11 1117A_17	0.0151	75.5	0.00852	85.2	0.0100	50.0	0.00630	63.0
	L733743-08	BNAMS11 1117A_18	0.0153	76.7	0.00794	79.4	0.00904	45.2	0.00563	56.3
	L733743-09	BNAMS11 1117A_19	0.0169	84.4	0.00964	96.4	0.0101	50.5	0.00700	70.0
	L733743-11	BNAMS11 1117A_20	0.0147	73.6	0.00877	87.7	0.00799	39.9	0.00669	66.9
	LCS WG754905	BNAMS11 1117A_05	0.0204	102	0.00904	90.4	0.0101	50.7	0.00710	71.0
	LCSD WG754905	BNAMS11 1117A_06	0.0210	105	0.00928	92.8	0.0104	52.1	0.00765	76.5
	BLANK WG754905	BNAMS11 1117A_07	0.0173	86.5	0.00902	90.2	0.0110	54.8	0.00711	71.1
	MS WG754905	BNAMS11 1117A_14	0.0189	94.3	0.00862	86.2	0.00923	46.1	0.00683	68.3
	MSD WG754905	BNAMS11 1117A_15	0.0187	93.4	0.00921	92.1	0.00969	48.4	0.00759	75.9

TBP --2,4,6-TRIBROMOPHENOL

True Value: 0.02 ppm Limits: 11.2 - 130

FBP --2-FLUOROBIPHENYL

True Value: 0.01 ppm Limits: 29.5 - 131

2FP --2-FLUOROPHENOL

True Value: 0.02 ppm Limits: 10 - 77.9

NBZ --NITROBENZENE-D5

True Value: 0.01 ppm Limits: 21.8 - 123

TPH --P-TERPHENYL-D14

True Value: 0.01 ppm Limits: 29.3 - 137

PHL --PHENOL-D5

True Value: 0.02 ppm Limits: 5 - 70.1

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG754905
Analysis Date:	11/18/2014 5:34:00 AM	Analyst:	280
Instrument ID:	BNAMS11	Prep Date:	11/15/2014
Sample Numbers:	L733743-06, -07, -08, -09, -11		

Surrogate Summary

Laboratory	TPH				PHL	
	Sample ID	Instrument	File ID	ppm % Rec	ppm % Rec	
	L733743-06	BNAMS11	1117A_16	0.00857 85.7	0.00715 35.8	
	L733743-07	BNAMS11	1117A_17	0.00847 84.7	0.00793 39.7	
	L733743-08	BNAMS11	1117A_18	0.00877 87.7	0.00702 35.1	
	L733743-09	BNAMS11	1117A_19	0.00908 90.8	0.00742 37.1	
	L733743-11	BNAMS11	1117A_20	0.00830 83.0	0.00631 31.6	
	LCS WG754905	BNAMS11	1117A_05	0.00888 88.8	0.00791 39.6	
	LCSD WG754905	BNAMS11	1117A_06	0.00927 92.7	0.00835 41.8	
	BLANK WG754905	BNAMS11	1117A_07	0.00884 88.4	0.00814 40.7	
	MS WG754905	BNAMS11	1117A_14	0.00831 83.1	0.00683 34.2	
	MSD WG754905	BNAMS11	1117A_15	0.00867 86.7	0.00707 35.4	

TBP --2,4,6-TRIBROMOPHENOL

True Value: 0.02 ppm Limits: 11.2 - 130

FBP --2-FLUOROBIPHENYL

True Value: 0.01 ppm Limits: 29.5 - 131

2FP --2-FLUOROPHENOL

True Value: 0.02 ppm Limits: 10 - 77.9

NBZ --NITROBENZENE-D5

True Value: 0.01 ppm Limits: 21.8 - 123

TPH --P-TERPHENYL-D14

True Value: 0.01 ppm Limits: 29.3 - 137

PHL --PHENOL-D5

True Value: 0.02 ppm Limits: 5 - 70.1

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755104
Analysis Date:	11/19/2014 6:54:00 AM	Analyst:	280
Instrument ID:	BNAMS2	Prep Date:	11/17/2014
Sample Numbers:	L733743-10, -12, -13, -14, -15		

Surrogate Summary

		TBP			FBP		2FP		NBZ	
Laboratory										
Sample ID	Instrument	File ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
L733743-10	BNAMS2	1118A_16	0.0146	72.8	0.00743	74.3	0.0122	60.8	0.00568	56.8
L733743-12	BNAMS2	1118A_17	0.0142	70.8	0.00764	76.4	0.00849	42.4	0.00611	61.1
L733743-13	BNAMS2	1118A_18	0.0134	66.8	0.00766	76.6	0.00915	45.7	0.00675	67.5
L733743-14	BNAMS2	1118A_19	0.0152	75.8	0.00865	86.5	0.0106	52.8	0.00718	71.8
L733743-15	BNAMS2	1118A_20	0.0129	64.5	0.00677	67.7	0.0112	56.2	0.00563	56.3
LCS WG755104	BNAMS2	1118A_04-	0.0172	85.9	0.00770	77.0	0.0111	55.4	0.00627	62.7
LCSD WG755104	BNAMS2	1118A_05-	0.0191	95.5	0.00751	75.1	0.0114	56.8	0.00698	69.8
BLANK WG755104	BNAMS2	1118A_06-	0.0147	73.3	0.00779	77.9	0.00940	47.0	0.00569	56.9

TBP --2,4,6-TRIBROMOPHENOL

True Value: 0.02 ppm Limits: 11.2 - 130

FBP --2-FLUOROBIPHENYL

True Value: 0.01 ppm Limits: 29.5 - 131

2FP --2-FLUOROPHENOL

True Value: 0.02 ppm Limits: 10 - 77.9

NBZ --NITROBENZENE-D5

True Value: 0.01 ppm Limits: 21.8 - 123

TPH --P-TERPHENYL-D14

True Value: 0.01 ppm Limits: 29.3 - 137

PHL --PHENOL-D5

True Value: 0.02 ppm Limits: 5 - 70.1

Quality Control Summary

SDG: L733743

ARCADIS US - TX

Test:	Semi-Volatile Organic Compounds by Method 8270C		
Project No:	TX000836.0008.00004	Matrix:	Water - ug/L
Project:	Navajo Refining Company - Artesia, NM	EPA ID:	TN00003
Collection Date:	11/11/2014	Analytic Batch:	WG755104
Analysis Date:	11/19/2014 6:54:00 AM	Analyst:	280
Instrument ID:	BNAMS2	Prep Date:	11/17/2014
Sample Numbers:	L733743-10, -12, -13, -14, -15		

Surrogate Summary

		TPH		PHL	
Laboratory					
Sample ID	Instrument	File ID	ppm	% Rec	ppm % Rec
L733743-10	BNAMS2	1118A_16	0.00809	80.9	0.00740 37.0
L733743-12	BNAMS2	1118A_17	0.00765	76.5	0.00528 26.4
L733743-13	BNAMS2	1118A_18	0.00696	69.6	0.00620 31.0
L733743-14	BNAMS2	1118A_19	0.00726	72.6	0.00805 40.3
L733743-15	BNAMS2	1118A_20	0.00774	77.4	0.00700 35.0
LCS WG755104	BNAMS2	1118A_04-	0.00748	74.8	0.00714 35.7
LCSD WG755104	BNAMS2	1118A_05-	0.00730	73.0	0.00749 37.4
BLANK WG755104	BNAMS2	1118A_06-	0.00666	66.6	0.00582 29.1

TBP --2,4,6-TRIBROMOPHENOL

True Value: 0.02 ppm Limits: 11.2 - 130

FBP --2-FLUOROBIPHENYL

True Value: 0.01 ppm Limits: 29.5 - 131

2FP --2-FLUOROPHENOL

True Value: 0.02 ppm Limits: 10 - 77.9

NBZ --NITROBENZENE-D5

True Value: 0.01 ppm Limits: 21.8 - 123

TPH --P-TERPHENYL-D14

True Value: 0.01 ppm Limits: 29.3 - 137

PHL --PHENOL-D5

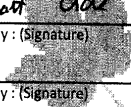
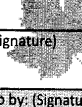
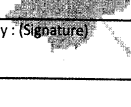
True Value: 0.02 ppm Limits: 5 - 70.1

ARCADIS US - TX 2929 Briarpark Dr., Suite 300 Houston, TX 77042		Billing Information: Attn: Accounts Payable 630 Plaza Drive, Suite 600 Highlands Ranch, CO 80129		Analysis / Container / Preservative 300 CL, FLSO4 125mlHDPE-NoPres 6020 NI, V, 7470 HG 500mlHDPE-HNO3 L2 CN 250mlHDPEAmb-NaOH 712 DROORLVI 40mlAmb-HCl-BT GRO 40mlAmb HCl METALS, Nava 500mlHDPE-HNO3 L2 NO2NO3 250mlHDPE-H2SO4 L2 TDS 250mlHDPE-NoPres V8260 40mlAmb-HCl										Chain of Custody Page 2 of 2  L.A.B S.C.I.E.N.C.E.S YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859  L# L733743 Table # Acctnum: ARCADHTX Template: T98001 Prelogin: P487502 TSR: 633 - Pam Langford PB: 10-28-14 Shipped Via: FedEX Ground Rem./Contaminant Sample # (lab only)									
Report to: Project Manager		Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-us.com		Project Description: Navajo Refining Company - Artesia, NM		City/State Collected:		Phone: 713-953-4800 Fax:		Client Project # TX000836.0008.00004		Lab Project # ARCADHTX-NAVAJO		P.O. #									
Collected by (print): Scott Ude + HMI Team		Site/Facility ID # Rest EVAPORATION PONDS		Date Results Needed		Email? ☐ No ☒ Yes FAX? ☐ No ☐ Yes		Rush? (Lab MUST Be Notified) ☐ Same Day 200% ☐ Next Day 100% ☐ Two Day 50% ☐ Three Day 25%		No. of Cntrs		Sample ID		Comp/Grab		Matrix *		Depth		Date		Time	
Collected by (signature): Scott Ude		Immediately Packed on Ice N ☐ Y ☒		Date Results Needed		Email? ☐ No ☒ Yes FAX? ☐ No ☐ Yes		Rush? (Lab MUST Be Notified) ☐ Same Day 200% ☐ Next Day 100% ☐ Two Day 50% ☐ Three Day 25%		No. of Cntrs		Sample ID		Comp/Grab		Matrix *		Depth		Date		Time	
												MW-43				GW				11/13/14		1150	
												MW-50				GW				11/13/14		1710	
												MW-52				GW				11/13/14		825	
												MW-57				GW				11/13/14		1010	
												MW-60				GW				11/12/14		845	
												MW-61				GW				11/13/14		1000	
												MW-62				GW				11/13/14		1445	
												MW-66				GW				11/12/14		1425	
												MW-90				GW				11/13/14		1415	
												MW-93				GW				11/13/14		1355	

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Relinquished by: (Signature) Scott Ude	Date: 11/14/14	Time: 800	Received by: (Signature) 	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ _____	Hold #
Relinquished by: (Signature) 	Date:	Time:	Received by: (Signature) 	Temp: 3.1 °C Bottles Received: 1207	Condition: (lab use only)
Relinquished by: (Signature) 	Date:	Time:	Received for lab by: (Signature) Langford	Date: 11/15/14 Time: 0900	COC Seal Intact: ☒ Y ☐ N ☐ NA pH Checked: 42712 NCF: Page 564 of 574

ARCADIS US - TX

2929 Briarpark Dr., Suite 300
Houston, TX 77042

Billing Information:

Attn: Accounts Payable
630 Plaza Drive, Suite 600
Highlands Ranch, CO 80129

Report to:

Project Manager

Email To: pam.krueger@arcadis-
us.com;maisha.turner@arcadis-

Project

Description: Navajo Refining Company - Artesia, NM

City/State
Collected:

Phone: 713-953-4800

Client Project #
TX000836.0008.00004Lab Project #
ARCADHTX-NAVAJO

Fax:

Collected by (print):

Scott Ude + Amy Teum

Site/Facility ID # Rest
EVAPORATION PONDS

P.O. #

Collected by (signature):

Scott Ude

Rush? (Lab MUST Be Notified)

Same Day 200%

Next Day 100%

Two Day 50%

Three Day 25%

Date Results Needed

Email? ☐ No ☒ YesFAX? ☐ No ☐ YesNo.
of
Cntrs

Sample ID	Comp	Grab	Matrix *	Depth	Date	Time	No. of Cntrs	300 CL	6020	CN 250	DRO	GRO	METALS	NO2/NO3	TDS 250	V8260	Shipped Via: FedEX Ground	
																	Rem/Contaminant	Sample # (lab only)
MW-96			GW		11/13/14	1520	10/2	X			X	X	X	X	X	X		110
MW-98			GW		11/12/14	1505	10/2	X			X	X	X	X	X	X		111
MW-101			GW		11/13/14	805	10/2	X			X	X	X	X	X	X		112
MW-104			GW		11/13/14	1405	10/2	X			X	X	X	X	X	X		113
~~MW-106~~			GW				10/2	X			X	X	X	X	X	X	Well may be buried; Not located per Navajo	
MW-107			GW		11/12/14	945	10/2	X			X	X	X	X	X	X		114
MW-109			GW		11/13/14	1220	10/2	X			X	X	X	X	X	X		115
MW-110			GW		11/13/14	1135	10/2	X			X	X	X	X	X	X		116
MW-111			GW		11/12/14	1330	10/2	X			X	X	X	X	X	X		117
MW-113			GW		11/13/14	1225	10/2	X			X	X	X	X	X	X		118

* Matrix: SS - Soil GW - Groundwater WW - Wastewater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Hold #

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Samples returned via: ☐ UPS☒ FedEx ☐ Courier ☐

Condition: (lab use only)

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: _____ °C Bottles Received:

3.1 1287

COC Seal Intact: ☒ Y ☐ N ☐ NA

Relinquished by: (Signature)

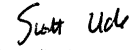
Date:

Time:

Received for lab by: (Signature)

Date: 11/15/14 Time: 0900

pH Checked: _____ NCF: _____
Page 565 of 574

ARCADIS US - TX 2929 Briarpark Dr., Suite 300 Houston, TX 77042		Billing Information: Attn: Accounts Payable 630 Plaza Drive, Suite 600 Highlands Ranch, CO 80129		Analysis / Container / Preservative										Chain of Custody Page 4 of 4  L.A.B S.C.I.E.N.C.E.S YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859 									
Report to: Project Manager		Email To: pam.krueger@arcadis-us.com;maisha.turner@arcadis-us.com		300 CL, FL, SO4 125mHDPE-NoPres 6020 NI, V, 7470 HG 500mHDPE-HNO3 CN 250mHDPEAmb-NaOH DROROLVI 40mlAmb-HCl-BT GRO 40mlAmb HCl METALS, Nava 500mHDPE-HNO3 NO2NO3 250mHDPE-H2SO4 TDS 250mHDPE-NoPres V8260 40mlAmb-HCl		L# L733743 Table # Acctnum: ARCADHTX Template: T98001 Prelogin: P487502 TSR: 633 - Pam Langford PB: 10-28-14 Shipped Via: FedEX Ground Rem./Contaminant Sample # (lab only)																	
Project Description: Navajo Refining Company - Artesia, NM		City/State Collected:				L# L733743 Table # Acctnum: ARCADHTX Template: T98001 Prelogin: P487502 TSR: 633 - Pam Langford PB: 10-28-14 Shipped Via: FedEX Ground Rem./Contaminant Sample # (lab only)																	
Phone: 713-953-4800 Fax:		Client Project # TX000836.0008.00004				Lab Project # ARCADHTX-NAVAJO		L# L733743 Table # Acctnum: ARCADHTX Template: T98001 Prelogin: P487502 TSR: 633 - Pam Langford PB: 10-28-14 Shipped Via: FedEX Ground Rem./Contaminant Sample # (lab only)															
Collected by (print): Scott Ude + HMI Team		Site/Facility ID # Rest EVAPORATION PONDS				P.O. #		L# L733743 Table # Acctnum: ARCADHTX Template: T98001 Prelogin: P487502 TSR: 633 - Pam Langford PB: 10-28-14 Shipped Via: FedEX Ground Rem./Contaminant Sample # (lab only)															
Collected by (signature): 		Rush? (Lab MUST Be Notified) Same Day 200% Next Day 100% Two Day 50% Three Day 25%		Date Results Needed Email? ☐ No ☒ Yes FAX? ☐ No ☐ Yes		No. of Cntrs		L# L733743 Table # Acctnum: ARCADHTX Template: T98001 Prelogin: P487502 TSR: 633 - Pam Langford PB: 10-28-14 Shipped Via: FedEX Ground Rem./Contaminant Sample # (lab only)															
Immediately Packed on Ice N ☐ Y ☒								L# L733743 Table # Acctnum: ARCADHTX Template: T98001 Prelogin: P487502 TSR: 633 - Pam Langford PB: 10-28-14 Shipped Via: FedEX Ground Rem./Contaminant Sample # (lab only)															
Sample ID		Comp Grab		Matrix *		Depth		Date		Time		No. of Cntrs		L# L733743 Table # Acctnum: ARCADHTX Template: T98001 Prelogin: P487502 TSR: 633 - Pam Langford PB: 10-28-14 Shipped Via: FedEX Ground Rem./Contaminant Sample # (lab only)									
MW-114				GW		11/12/14		1335		10/2		X		L# L733743 Table # Acctnum: ARCADHTX Template: T98001 Prelogin: P487502 TSR: 633 - Pam Langford PB: 10-28-14 Shipped Via: FedEX Ground Rem./Contaminant Sample # (lab only)									
MW-115				GW		11/12/14		1250		10/2		X		L# L733743 Table # Acctnum: ARCADHTX Template: T98001 Prelogin: P487502 TSR: 633 - Pam Langford PB: 10-28-14 Shipped Via: FedEX Ground Rem./Contaminant Sample # (lab only)									
MW-116				GW		11/12/14		1200		10/2		X		L# L733743 Table # Acctnum: ARCADHTX Template: T98001 Prelogin: P487502 TSR: 633 - Pam Langford PB: 10-28-14 Shipped Via: FedEX Ground Rem./Contaminant Sample # (lab only)									
MW-117				GW		11/13/14		1400		10/2		X		L# L733743 Table # Acctnum: ARCADHTX Template: T98001 Prelogin: P487502 TSR: 633 - Pam Langford PB: 10-28-14 Shipped Via: FedEX Ground Rem./Contaminant Sample # (lab only)									
MW-118				GW		11/13/14		1505		10/2		X		L# L733743 Table # Acctnum: ARCADHTX Template: T98001 Prelogin: P487502 TSR: 633 - Pam Langford PB: 10-28-14 Shipped Via: FedEX Ground Rem./Contaminant Sample # (lab only)									
MW-119				GW		11/13/14		1550		10/2		X		L# L733743 Table # Acctnum: ARCADHTX Template: T98001 Prelogin: P487502 TSR: 633 - Pam Langford PB: 10-28-14 Shipped									

ARCADIS US - TX 2929 Briarpark Dr., Suite 300 Houston, TX 77042		Billing Information: Attn: Accounts Payable 630 Plaza Drive, Suite 600 Highlands Ranch, CO 80129		Analysis / Container / Preservative										Chain of Custody Page 5 of 9						
Report to: Project Manager		Email To: pam.krueger@arcadis-us.com;maisha.turner@arcadis-		 L.A.B S.C.I.E.N.C.E.S YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859										L# 733743						
Project Description: Navajo Refining Company - Artesia, NM		City/State Collected:		300 CL, FL, SO4 125mlHDPE-NoPres 6020 NI, V, 7470 HG 500mlHDPE-HNO3 CN 250mlHDPEAmb-NaOH DROOROLVI 40mlAmb-HCl-BT GRO 40mlAmb HCl METALS, Nava 500mlHDPE-HNO3 <2* NO2NO3 250mlHDPE-H2SO4 <2 TDS 250mlHDPE-NoPres V8260 40mlAmb-HCl										Table # Acctnum: ARCADHTX Template: T98001 Prelogin: P487502 TSR: 633 - Pam Langford PB: 10-22-14						
Phone: 713-953-4800 Fax:		Client Project # TX000836.0008.00004		Lab Project # ARCADHTX-NAVAJO												Shipped Via: FedEX Ground				
Collected by (print): Scott Wade + HMI Team		Site/Facility ID # REST EVAPORATION POND		P.O. #												Rem./Contaminant Sample # (lab only)				
Collected by (signature): Scott Wade		Rush? (Lab MUST Be Notified) Same Day 200% Next Day 100% Two Day 50% Three Day 25%		Date Results Needed Email? ___No ___Yes FAX? ___No ___Yes		No. of Cntrs														
Immediately Packed on Ice N ___ Y ☒																				
Sample ID		Comp	Grab	Matrix *	Depth	Date	Time	Cntrs												
MW-128				GW		11/12/14	1030	10	X				X	X	X	X	X		129	
MW-130				GW		11/13/14	1010	10	X				X	X	X	X	X		130	
MW-131				GW		11/12/14	900	10	X				X	X	X	X	X		131	
MW-134				GW		11/12/14	1140	10	X				X	X	X	X	X		132	
MW-135				GW		11/13/14	1430	10	X				X	X	X	X	X		133	
~~RA-4196~~				GW				6	X						X	X	X			
RA-4798				GW		11/13/14	1600	6	X						X	X	X		134	
				GW				1		X										
				GW				1		X										
				WW				3	X						X	X				

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks: Cations only = Sample volume provided in standard metals bottle for cations per Arcadis (i.e., Ca, K, Na)
 Temp _____
 Flow _____ Other _____

Relinquished by: (Signature) Scott Wade	Date: 11/14/14	Time: 800	Received by: (Signature) [Signature]	Samples returned via: ☒ FedEx ☐ UPS ☐ Courier	Condition: (lab use only) pH Adjusted in Lab for RA-4798 @ 1830
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.1 °C Bottles Received: 1287	COC Seal Intact: Y N NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) [Signature]	Date: 11/15/14 Time: 0900	pH Checked: NCF: 22

ARCADIS US - TX 2929 Briarpark Dr., Suite 300 Houston, TX 77042				Billing Information: Attn: Accounts Payable 630 Plaza Drive, Suite 600 Highlands Ranch, CO 80129				Analysis / Container / Preservative												Chain of Custody Page 1 of 3																																																																																														
				Report to: Project Manager				Email To: pam.krueger@arcadis-us.com; maisha.turner@arcadis-us.com				 ESC L.A.B S.C.I.E.N.C.E.S YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859																																																																																																						
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Phone: 713-953-4800 Fax:				Client Project # TX000836.0008.00004 Lab Project # ARCADHTX-NAVAJO				Collected by (print): Scott Ude + HMI Team Collected by (signature): Scott Ude Immediately Packed on Ice N ☐ Y ☒ Site/Facility ID # REST Rush? (Lab MUST Be Notified) Same Day 200% Next Day 100% Two Day 50% Three Day 25% Date Results Needed Email? ☐ No ☒ Yes FAX? ☐ No ☒ Yes																																																																																																										
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample ID</th> <th>Comp/Grab</th> <th>Matrix *</th> <th>Depth</th> <th>Date</th> <th>Time</th> <th>No. of Cntrs</th> </tr> </thead> <tbody> <tr><td>MW-102</td><td></td><td>GW</td><td></td><td>11/13/14</td><td>1315</td><td>108</td></tr> <tr><td>MW-48</td><td></td><td>GW</td><td></td><td>11/13/14</td><td>920</td><td>108</td></tr> <tr><td>MW-65</td><td></td><td>GW</td><td></td><td>11/13/14</td><td>1520</td><td>108</td></tr> <tr><td>MW-99</td><td></td><td>GW</td><td></td><td>11/13/14</td><td>1625</td><td>108</td></tr> <tr><td>KWB-10R</td><td></td><td>GW</td><td></td><td>11/12/14</td><td>1155</td><td>88</td></tr> <tr><td>KWB-2R</td><td></td><td>GW</td><td></td><td>11/13/14</td><td>830</td><td>88</td></tr> <tr><td>KWB-5</td><td></td><td>GW</td><td></td><td>11/12/14</td><td>1415</td><td>88</td></tr> <tr><td>KWB-6</td><td></td><td>GW</td><td></td><td>11/12/14</td><td>1525</td><td>88</td></tr> <tr><td>MW-112</td><td></td><td>GW</td><td></td><td>11/12/14</td><td>1245</td><td>108</td></tr> <tr><td>MW-58</td><td></td><td>GW</td><td></td><td>11/13/14</td><td>915</td><td>108</td></tr> </tbody> </table>				Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	MW-102		GW		11/13/14	1315	108	MW-48		GW		11/13/14	920	108	MW-65		GW		11/13/14	1520	108	MW-99		GW		11/13/14	1625	108	KWB-10R		GW		11/12/14	1155	88	KWB-2R		GW		11/13/14	830	88	KWB-5		GW		11/12/14	1415	88	KWB-6		GW		11/12/14	1525	88	MW-112		GW		11/12/14	1245	108	MW-58		GW		11/13/14	915	108	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Rem./Contaminant</th> <th>Sample # (lab only)</th> </tr> </thead> <tbody> <tr><td></td><td>135</td></tr> <tr><td></td><td>136</td></tr> <tr><td></td><td>137</td></tr> <tr><td></td><td>138</td></tr> <tr><td></td><td>139</td></tr> <tr><td></td><td>140</td></tr> <tr><td></td><td>141</td></tr> <tr><td></td><td>142</td></tr> <tr><td></td><td>143</td></tr> <tr><td></td><td>144</td></tr> </tbody> </table>												Rem./Contaminant	Sample # (lab only)		135		136		137		138		139		140		141		142		143		144
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs																																																																																																												
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* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks: **ARCADIS NOTE: FMR LNAPL WELLS ON THIS PAGE OF COC**

pH _____ Temp _____
Flow _____ Other _____

Relinquished by: (Signature) Scott Ude	Date: 11/14/14	Time: 800	Received by: (Signature) 	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ _____	Hold #
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: _____ °C Bottles Received: 3.1 1287	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) Jerry	Date: 11/15/14 Time: 0900	COC Seal Intact: ☒ Y ☐ N ☐ NA pH Checked: <2 NCE: Page 568 of 574