

Appendix 4



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 86240

December 21, 2015

HARLEY EVERHART

FRONTIER FIELD SERVICES

4200 SKELLY DRIVE, SUITE 700

TULSA, OK 74135

RE: ABO 16" LATTERAL

Enclosed are the results of analyses for samples received by the laboratory on 12/15/15 16:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Coley D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

FRONTIER FIELD SERVICES
HARLEY EVERHART
4200 SKELLY DRIVE, SUITE 700
TULSA OK, 74135
Fax To: (575) 676-2401

Received: 12/15/2015
Reported: 12/21/2015
Project Name: ABO 16" LATTEAL
Project Number: NONE GIVEN
Project Location: ARTESIA, NM

Sampling Date: 12/15/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: #1 (H503263-01)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/16/2015	ND	1.95	97.5	2.00	0.179	
Toluene*	<0.050	0.050	12/16/2015	ND	1.97	98.6	2.00	0.739	
Ethylbenzene*	<0.050	0.050	12/16/2015	ND	2.00	100	2.00	0.0556	
Total Xylenes*	<0.150	0.150	12/16/2015	ND	5.99	99.9	6.00	0.291	
Total BTX	<0.300	0.300	12/16/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/16/2015	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	56.6	10.0	12/16/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 91.9 % 35-147

Surrogate: 1-Chlorooctadecane 96.1 % 28-171

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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FRONTIER FIELD SERVICES
 HARLEY EVERHART
 4200 SKELLY DRIVE, SUITE 700
 TULSA OK, 74135
 Fax To: (575) 676-2401

Received: 12/15/2015
 Reported: 12/21/2015
 Project Name: ABO 16" LATTEAL
 Project Number: NONE GIVEN
 Project Location: ARTESIA, NM

Sampling Date: 12/15/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: #2 (H503263-02)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/16/2015	ND	1.95	97.5	2.00	0.179	
Toluene*	<0.050	0.050	12/16/2015	ND	1.97	98.6	2.00	0.739	
Ethylbenzene*	<0.050	0.050	12/16/2015	ND	2.00	100	2.00	0.0556	
Total Xylenes*	<0.150	0.150	12/16/2015	ND	5.99	99.9	6.00	0.291	
Total BTX	<0.300	0.300	12/16/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/17/2015	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	45.6	10.0	12/16/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 89.9 % 35-147

Surrogate: 1-Chlorooctadecane 87.5 % 28-171

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 Fax To: (575) 676-2401

Received: 12/15/2015
 Reported: 12/21/2015
 Project Name: ABO 16" LATTEAL
 Project Number: NONE GIVEN
 Project Location: ARTESIA, NM

Sampling Date: 12/15/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: #3 (H503263-03)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/16/2015	ND	1.95	97.5	2.00	0.179	
Toluene*	<0.050	0.050	12/16/2015	ND	1.97	98.6	2.00	0.739	
Ethylbenzene*	<0.050	0.050	12/16/2015	ND	2.00	100	2.00	0.0556	
Total Xylenes*	<0.150	0.150	12/16/2015	ND	5.99	99.9	6.00	0.291	
Total BTX	<0.300	0.300	12/16/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 109 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/17/2015	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	<10.0	10.0	12/16/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 86.1 % 35-147

Surrogate: 1-Chlorooctadecane 86.2 % 28-171

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Received: 12/15/2015
Reported: 12/21/2015
Project Name: ABO 16" LATTEAL
Project Number: NONE GIVEN
Project Location: ARTESIA, NM

Sampling Date: 12/15/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: #4 (H503263-04)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/17/2015	ND	1.95	97.5	2.00	0.179	
Toluene*	<0.050	0.050	12/17/2015	ND	1.97	98.6	2.00	0.739	
Ethylbenzene*	<0.050	0.050	12/17/2015	ND	2.00	100	2.00	0.0556	
Total Xylenes*	<0.150	0.150	12/17/2015	ND	5.99	99.9	6.00	0.291	
Total BTX	<0.300	0.300	12/17/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 107 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/17/2015	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	383	10.0	12/16/2015	ND	183	91.7	200	4.78	

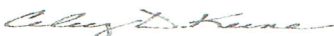
Surrogate: 1-Chlorooctane 85.3 % 35-147

Surrogate: 1-Chlorooctadecane 96.1 % 28-171

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4200 SKELLY DRIVE, SUITE 700
TULSA OK, 74135
Fax To: (575) 676-2401

Received: 12/15/2015
Reported: 12/21/2015
Project Name: ABO 16" LATTEAL
Project Number: NONE GIVEN
Project Location: ARTESIA, NM

Sampling Date: 12/15/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: #5 (H503263-05)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/17/2015	ND	1.95	97.5	2.00	0.179	
Toluene*	<0.050	0.050	12/17/2015	ND	1.97	98.6	2.00	0.739	
Ethylbenzene*	<0.050	0.050	12/17/2015	ND	2.00	100	2.00	0.0556	
Total Xylenes*	<0.150	0.150	12/17/2015	ND	5.99	99.9	6.00	0.291	
Total BTEx	<0.300	0.300	12/17/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/17/2015	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: MS					
S-04									

Surrogate: 1-Chlorooctane 112 % 35-147

Surrogate: 1-Chlorooctadecane 208 % 28-171

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HARLEY EVERHART
4200 SKELLY DRIVE, SUITE 700
TULSA OK, 74135
Fax To: (575) 676-2401

Received: 12/15/2015
Reported: 12/21/2015
Project Name: ABO 16" LATTERAL
Project Number: NONE GIVEN
Project Location: ARTESIA, NM

Sampling Date: 12/15/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: #6 (H503263-06)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/17/2015	ND	1.95	97.5	2.00	0.179	
Toluene*	<0.050	0.050	12/17/2015	ND	1.97	98.6	2.00	0.739	
Ethylbenzene*	<0.050	0.050	12/17/2015	ND	2.00	100	2.00	0.0556	
Total Xylenes*	<0.150	0.150	12/17/2015	ND	5.99	99.9	6.00	0.291	
Total BTEX	<0.300	0.300	12/17/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 107 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/17/2015	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	124	10.0	12/16/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 86.3 % 35-147

Surrogate: 1-Chlorooctadecane 95.2 % 28-171

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Analytical Results For:

FRONTIER FIELD SERVICES
HARLEY EVERHART
4200 SKELLY DRIVE, SUITE 700
TULSA OK, 74135
Fax To: (575) 676-2401

Received: 12/15/2015
Reported: 12/21/2015
Project Name: ABO 16" LATTERAL
Project Number: NONE GIVEN
Project Location: ARTESIA, NM

Sampling Date: 12/15/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: #7 (H503263-07)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/17/2015	ND	1.95	97.5	2.00	0.179	
Toluene*	<0.050	0.050	12/17/2015	ND	1.97	98.6	2.00	0.739	
Ethylbenzene*	0.127	0.050	12/17/2015	ND	2.00	100	2.00	0.0556	
Total Xylenes*	0.801	0.150	12/17/2015	ND	5.99	99.9	6.00	0.291	
Total BTEX	0.929	0.300	12/17/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 121 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	12/17/2015	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	58.6	50.0	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	4200	50.0	12/16/2015	ND	183	91.7	200	4.78	

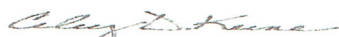
Surrogate: 1-Chlorooctane 128 % 35-147

Surrogate: 1-Chlorooctadecane 170 % 28-171

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* = Accredited Analyte

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4200 SKELLY DRIVE, SUITE 700
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Fax To: (575) 676-2401

Received: 12/15/2015
Reported: 12/21/2015
Project Name: ABO 16" LATTERAL
Project Number: NONE GIVEN
Project Location: ARTESIA, NM

Sampling Date: 12/15/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: #8 (H503263-08)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.052	0.050	12/17/2015	ND	1.95	97.5	2.00	0.179	
Toluene*	0.168	0.050	12/17/2015	ND	1.97	98.6	2.00	0.739	
Ethylbenzene*	0.112	0.050	12/17/2015	ND	2.00	100	2.00	0.0556	
Total Xylenes*	<0.150	0.150	12/17/2015	ND	5.99	99.9	6.00	0.291	
Total BTEX	0.332	0.300	12/17/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	12/17/2015	ND	400	100	400	3.92	
TPH 8015M									

		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	576	10.0	12/16/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 105 % 35-147

Surrogate: 1-Chlorooctadecane 115 % 28-171

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Received: 12/15/2015
 Reported: 12/21/2015
 Project Name: ABO 16" LATTERAL
 Project Number: NONE GIVEN
 Project Location: ARTESIA, NM

Sampling Date: 12/15/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: #9 (H503263-09)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/17/2015	ND	2.09	104	2.00	5.69	
Toluene*	0.398	0.050	12/17/2015	ND	2.07	104	2.00	6.88	
Ethylbenzene*	0.321	0.050	12/17/2015	ND	2.10	105	2.00	7.92	
Total Xylenes*	1.20	0.150	12/17/2015	ND	6.34	106	6.00	6.97	
Total BTX	1.92	0.300	12/17/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 106 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	12/17/2015	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	15.1	10.0	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	2360	10.0	12/16/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 101 % 35-147

Surrogate: 1-Chlorooctadecane 135 % 28-171

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

FRONTIER FIELD SERVICES
HARLEY EVERHART
4200 SKELLY DRIVE, SUITE 700
TULSA OK, 74135
Fax To: (575) 676-2401

Received: 12/15/2015
Reported: 12/21/2015
Project Name: ABO 16" LATTERAL
Project Number: NONE GIVEN
Project Location: ARTESIA, NM

Sampling Date: 12/15/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: #10 (H503263-10)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/17/2015	ND	2.09	104	2.00	5.69	
Toluene*	0.101	0.050	12/17/2015	ND	2.07	104	2.00	6.88	
Ethylbenzene*	0.217	0.050	12/17/2015	ND	2.10	105	2.00	7.92	
Total Xylenes*	1.16	0.150	12/17/2015	ND	6.34	106	6.00	6.97	
Total BTEX	1.47	0.300	12/17/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 113 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	12/17/2015	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: MS					
S-06									

GRO C6-C10	<200	200	12/17/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	10800	200	12/17/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 140 % 35-147

Surrogate: 1-Chlorooctadecane 285 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

FRONTIER FIELD SERVICES
HARLEY EVERHART
4200 SKELLY DRIVE, SUITE 700
TULSA OK, 74135
Fax To: (575) 676-2401

Received: 12/15/2015
Reported: 12/21/2015
Project Name: ABO 16" LATTERAL
Project Number: NONE GIVEN
Project Location: ARTESIA, NM

Sampling Date: 12/15/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: #11 (H503263-11)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/17/2015	ND	2.09	104	2.00	5.69	
Toluene*	<0.050	0.050	12/17/2015	ND	2.07	104	2.00	6.88	
Ethylbenzene*	<0.050	0.050	12/17/2015	ND	2.10	105	2.00	7.92	
Total Xylenes*	<0.150	0.150	12/17/2015	ND	6.34	106	6.00	6.97	
Total BTX	<0.300	0.300	12/17/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/17/2015	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	28.2	10.0	12/16/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 90.3 % 35-147

Surrogate: 1-Chlorooctadecane 93.4 % 28-171

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Appendix 4



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

FRONTIER FIELD SERVICES
 HARLEY EVERHART
 4200 SKELLY DRIVE, SUITE 700
 TULSA OK, 74135
 Fax To: (575) 676-2401

Received: 12/15/2015
 Reported: 12/21/2015
 Project Name: ABO 16" LATTERAL
 Project Number: NONE GIVEN
 Project Location: ARTESIA, NM

Sampling Date: 12/15/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: #12 (H503263-12)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/17/2015	ND	2.09	104	2.00	5.69	
Toluene*	<0.050	0.050	12/17/2015	ND	2.07	104	2.00	6.88	
Ethylbenzene*	<0.050	0.050	12/17/2015	ND	2.10	105	2.00	7.92	
Total Xylenes*	<0.150	0.150	12/17/2015	ND	6.34	106	6.00	6.97	
Total BTX	<0.300	0.300	12/17/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 106 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/17/2015	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/16/2015	ND	194	97.0	200	5.68	
DRO >C10-C28	337	10.0	12/16/2015	ND	183	91.7	200	4.78	

Surrogate: 1-Chlorooctane 85.9 % 35-147

Surrogate: 1-Chlorooctadecane 91.0 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

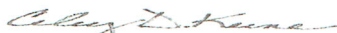
Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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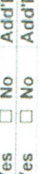
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Celey D. Keene, Lab Director/Quality Manager

Company Name: <i>Frontier Field Services (Alpha Energy)</i>		P.O. #:		BILL TO												ANALYSIS REQUEST											
Project Manager:		Company:																									
Address:		Attn:																									
City: <i>Mulgamer</i>		Address: <i>AK</i>																									
State: <i>Wm</i>		City:																									
Phone #: <i>505 513 4922</i>		State:																									
Project #: <i>1400 16" Lateral</i>		Zip:																									
Project Location: <i>Mt. St. Mary</i>		Phone #:																									
Sampler Name: <i>Shirley Evers</i>		Fax #:																									
FOR LAB USE ONLY				PRESERV												SAMPLING											
Lab I.D. <i>H503263</i>				MATRIX GROUNDWATER <input checked="" type="checkbox"/> SLUDGE <input type="checkbox"/> WASTEWATER <input checked="" type="checkbox"/> OIL <input type="checkbox"/> SOIL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> ACID/BASE <input checked="" type="checkbox"/> ICE / COOL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>												DATE <i>12/15/15</i> TIME <i>13:40</i> <i>12/15/15 13:50</i>											
Sample I.D. <i>#11</i>				<input checked="" type="checkbox"/>												<input checked="" type="checkbox"/>											
Sample I.D. <i>#12</i>				<input checked="" type="checkbox"/>												<input checked="" type="checkbox"/>											

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Relinquished By: 	Date: 12.15.15	Received By: 	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #: _____
Relinquished By: 	Time: 16:10	Received By: _____	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #: _____
Delivered By: (Circle One)	Time: _____	Sample Condition Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/>	REMARKS: Email Results never heard @ alconenergy.com	
Sampler - UPS - Bus - Other:	Checked By: (Initials) 	1.60c		

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

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