Frontier Field Services 65 Mercado St. Durango, CO 81301

# Appendix A Laboratory Analytical Reports



May 22, 2017

HARLEY EVERHART AKA ENERGY GROUP, LLC P. O. DRAWER 70 ARTESIA, NM 88211

RE: RHUMBUS STATE UNION #1

Enclosed are the results of analyses for samples received by the laboratory on 05/19/17 15:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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 <a href="https://www.tcea.texas.gov/field/ga/lab\_accred\_certif.html">www.tcea.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated 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,

Celley D. Keine

Celey D. Keene Lab Director/Quality Manager



AKA ENERGY GROUP, LLC HARLEY EVERHART P. O. DRAWER 70 ARTESIA NM, 88211 Fax To: (575) 677-5152

Received:	05/19/2017	Sampling Date:	05/10/2017
Reported:	05/22/2017		05/19/2017
Project Name:	RHUMBUS STATE UNION #1	Sampling Type:	Soil
Project Number:		Sampling Condition:	Cool & Intact
	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	NOT GIVEN		

# Sample ID: #1 (H701349-01)

BTEX 8021B	mg/	kg	Analyz	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/20/2017	ND	1.87	93.3	2.00	1.63	Quanner
Toluene*	<0.050	0.050	05/20/2017	ND	1.86	92.8	2.00	1.34	
Ethylbenzene*	<0.050	0.050	05/20/2017	ND	1.94	96.9	2.00	1.70	
Total Xylenes*	<0.150	0.150	05/20/2017	ND	5.47	91.1	6.00	1.36	
Total BTEX	<0.300	0.300	05/20/2017	ND			0.00	1,50	
Surrogate: 4-Bromofluorobenzene (PIL	99.8 %	6 72-148							
Chloride, SM4500CI-B	mg/l	g	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value OC	RPD	Qualifier
Chloride	1630	16.0	05/20/2017	ND	448	112	400		Quaimer
TPH 8015M	mg/k	g	Analyze	d By: MS			400	7.41	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	
GRO C6-C10	<10.0	10.0	05/22/2017	ND	186	92.9	200		Qualifier
DR0 >C10-C28	285	10.0	05/22/2017	ND	188	93.8		3.03	
EXT DRO >C28-C36	80,4	10.0	05/22/2017	ND	100	93.0	200	3.70	
Surrogate: 1-Chlorooctane	84.4 %	28.3-164							
Surrogate: 1-Chlorooctadecane	95.6%	34.7-157							

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# \*=Accredited Analyte

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AKA ENERGY GROUP, LLC HARLEY EVERHART P. O. DRAWER 70 ARTESIA NM, 88211 Fax To: (575) 677-5152

Received: Reported: Project Name: Project Number: Project Location:	05/19/2017 05/22/2017 RHUMBUS STATE UNION #1 NONE GIVEN NOT GIVEN	Sampling Date: Sampling Type: Sampling Condition: Sample Received By:	05/19/2017 Soil Cool & Intact Celey D. Keene
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#### Sample ID: #2 (H701349-02) DTEV BODAD

BTEX 8021B	mg/	kg	Analyz	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value OC	RPD	Qualifier
Benzene*	<0.050	0.050	05/20/2017	ND	1.87	93.3	2.00	1.63	Qualitier
Toluene*	<0.050	0.050	05/20/2017	ND	1.86	92.8	2.00	1.34	
Ethylbenzene*	<0.050	0.050	05/20/2017	ND	1.94	96.9	2.00	1.70	
Total Xylenes*	<0.150	0.150	05/20/2017	ND	5.47	91.1	6.00	1.36	
Total BTEX	<0.300	0.300	05/20/2017	ND		54,1	0.00	1.30	
Surrogate: 4-Bromofluorobenzene (PIL	101 %	6 72-148							
Chloride, SM4500CI-B	mg/l	cg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3880	16.0	05/20/2017	ND	448	112	400	7.41	Quantier
TPH 8015M	mg/k	g	Analyze	d By: MS		***	400	7.41	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/20/2017	ND	185	92.4	200		Qualitier
DRO >C10-C28	<10.0	10.0	05/20/2017	ND	186	92.8		4.63	
EXT DRO >C28-C36	<10.0	10.0	05/20/2017	ND	100	92.0	200	5.81	
Surrogate: 1-Chlorooctane	68.5 %	28.3-164							
Surrogate: 1-Chlorooctadecane	70.2 %	34.7-157							

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# \*=Accredited Analyte

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AKA ENERGY GROUP, LLC HARLEY EVERHART P. O. DRAWER 70 ARTESIA NM, 88211 Fax To: (575) 677-5152

Received: Reported: Project Name: Project Number: Project Location:	05/19/2017 05/22/2017 RHUMBUS STATE UNION #1 NONE GIVEN NOT GIVEN	Sampling Date: Sampling Type: Sampling Condition: Sample Received By:	05/19/2017 Soil Cool & Intact Celey D. Keene
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# Sample ID: #3 (H701349-03)

BTEX 8021B	mg/	kg	Analyz	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	
Benzene*	<0.050	0.050	05/20/2017	ND	1.87	93.3	2.00		Qualifier
Toluene*	<0.050	0.050	05/20/2017	ND	1.86	92.8	2.00	1.63	
Ethylbenzene*	< 0.050	0.050	05/20/2017	ND	1.94	96.9		1.34	
Total Xylenes*	<0.150	0.150	05/20/2017	ND	5.47	91.1	2.00	1.70	
Total BTEX	<0.300	0.300	05/20/2017	ND	5.17	91.1	6.00	1.36	
Surrogate: 4-Bromofluorobenzene (PIL	100 %	6 72-148							
Chloride, SM4500CI-B	mg/l			d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value OC	222	
Chloride	176	16.0	05/20/2017	ND	448	112		RPD	Qualifier
TPH 8015M	mg/k	g		d By: MS	110	112	400	7.41	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	Tauritalia		
GRO C6-C10	<10.0	10.0	05/20/2017	ND			True Value QC	RPD	Qualifier
DRO >C10-C28	66.3	10.0	05/20/2017		185	92.4	200	4.63	
XT DRO >C28-C36	19.3	10.0	05/20/2017	ND	186	92.8	200	5.81	
urrogate: 1-Chlorooctane	79.0 %	28.3-164							
urrogate: 1-Chlorooctadecane	81.8 %								

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

# Analytical Results For:

AKA ENERGY GROUP, LLC HARLEY EVERHART P. O. DRAWER 70 ARTESIA NM, 88211 Fax To: (575) 677-5152

Received: Reported: Project Name: Project Number: Project Location:	05/19/2017 05/22/2017 RHUMBUS STATE UNION #1 NONE GIVEN	Sampling Date: Sampling Type: Sampling Condition: Sample Received By:	05/19/2017 Soil Cool & Intact Celey D. Keene
Project Location:	NOT GIVEN	Semple Received By:	Celey D. Keene

#### Sample ID: #4 (H701349-04) PTEV COTAD

Dessived

	kg	Analyz	ed By: MS					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Velue DC		
<0.050	0.050	05/20/2017						Qualifier
<0.050	0.050							
< 0.050	0.050						1.34	
<0.150	0.150		1.5				1.70	
<0.300	0.300	05/20/2017	ND	5.4/	91.1	6.00	1.36	
98.2 9	6 72-148							
mg/l			d By: AC					
Result	Reporting Limit	Analyzed		BC	% Bassura	-		
288	16.0	05/20/2017					RPD	Qualifier
mg/k				448	112	400	7.41	
Result	Reporting Limit							
<10.0						True Value QC	RPD	Qualifier
				185	92.4	200	4.63	
1000		and the second se	ND	186	92.8	200	5.81	
Delet	10.0	05/20/2017	ND					
67.0 %	28.3-164							
82.1 %	34.7-157							
	<0.050 <0.050 <0.150 <0.300 98.2 % mg/k Result 288 mg/k Result <10.0 1900 344 67.0 %	<0.050 0.050 <0.050 0.050 <0.050 0.050 <0.150 0.150 <0.300 0.300 98.2 % 72-148 mg/kg Result Reporting Limit 288 16.0 mg/kg Result Reporting Limit <10.0 10.0 1900 10.0 344 10.0 67.0 % 28.3-164	Result         Reporting Limit         Analyzed           <0.050	Result         Reporting Limit         Analyzed         Method Blank           <0.050	Result         Reporting Limit         Analyzed         Method Blank         BS           <0.050	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery           <0.050	Result         Reporting Limit         Analyzed         Method Blank         BS         %s Recovery         True Value QC           <0.050	Result         Reporting Limit         Analyzed         Method Blank         BS         %6 Recovery         True Value QC         RPD           <0.050

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AKA ENERGY GROUP, LLC HARLEY EVERHART P. O. DRAWER 70 ARTESIA NM, 88211 Fax To: (575) 677-5152

Received:	05/19/2017		
Reported:		Sampling Date:	05/19/2017
Project Name:	05/22/2017	Sampling Type:	Soil
Project Number:	RHUMBUS STATE UNION #1 NONE GIVEN	Sampling Condition:	Cool & Intact
Project Location:	NOT GIVEN	Sample Received By:	Celey D. Keene

# Sample ID: #5 (H701349-05)

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mg/	kg	Analyz	ed By: MS					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Pacouras	True Vol 00		
<0.050	0.050	05/20/2017					RPD	Qualifier
< 0.050	0.050						1.63	
< 0.050	0.050					2.00	1.34	
<0.150						2.00	1.70	
<0.300	0.300			5.47	91.1	6.00	1.36	
99.6 %	6 72-148							
	- 170		d By: AC					
Result	Reporting Limit			BS	P/ Dacautant	-		
1150	16.0					True Value QC	RPD	Qualifier
mg/k				448	112	400	7.41	
Result	Reporting Limit			PC	~ ~			
<10.0						True Value QC	RPD	Qualifier
60.6				185	92.4	200	4.63	
			ND	186	92.8	200	5.81	
54.0	10.0	05/20/2017	ND					
67.2 %	28.3-164							
66.1 %	34.7-157							
	Result <0.050 <0.050 <0.150 <0.300 99.6 % mg/k Result 1150 mg/k Result <10.0 60.6 34.0	Result         Reporting Limit           <0.050	Result         Reporting Limit         Analyzed           <0.050	Result         Reporting Limit         Analyzed         Method Blank           <0.050	Result         Reporting Limit         Analyzed         Method Blank         BS           <0.050	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery           <0.050	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC           <0.050	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC         RPD           <0.050

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Received: Reported: Project Name: Project Number: Project Location:	05/19/2017 05/22/2017 RHUMBUS STATE UNION #1 NONE GIVEN NOT GIVEN	Sampling Date: Sampling Type: Sampling Condition: Sample Received By:	05/19/2017 Soil Cool & Intact Celey D. Keene
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#### Sample ID: #6 (H701349-06) DTEV GOODER

BTEX 8021B	mg/	kg	Analyz	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	
Benzene*	<0.050	0.050	05/20/2017	ND	1.87	93.3	2.00		Qualifier
Toluene*	<0.050	0.050	05/20/2017	ND	1.86	92.8		1.63	
Ethylbenzene*	<0.050	0.050	05/20/2017	ND	1.94	96,9	2.00	1.34	
Total Xylenes*	<0.150	0.150	05/20/2017	ND	5.47	91.1	2.00	1.70	
Total BTEX	<0.300	0.300	05/20/2017	ND	5.47	91.1	6.00	1.36	
Surrogate: 4-Bromofluorobenzene (PIL	102 %	6 72-148							
Chloride, SM4500CI-B	mg/l	(g	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualif
Chloride	11700	16.0	05/20/2017	ND	448	112			Qualifier
TPH 8015M	mg/k	g	Analyze	d By: MS	110	112	400	7.41	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	85	% Recovery	True Value OC	RPD	
GRO C6-C10	<10.0	10.0	05/20/2017	ND	185				Qualifier
DRO >C10-C28	<10.0	10.0	05/20/2017	ND		92.4	200	4.63	
EXT DRO >C28-C36	<10.0	10.0	05/20/2017	ND	186	92.8	200	5.81	
iurrogate: 1-Chlorooctane	81.9 %	28.3-164							
hurrogate: 1-Chlorooctadecane	84.9 %	34.7-157							

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Celey D. Keene, Lab Director/Quality Manager

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AKA ENERGY GROUP, LLC HARLEY EVERHART P. O. DRAWER 70 ARTESIA NM, 88211 Fax To: (575) 677-5152

Received:	05/19/2017	Complian D. L	
Reported:	05/22/2017	Sampling Date:	05/19/2017
Project Name:	RHUMBUS STATE UNION #1	Sampling Type:	Soil
Project Number:	NONE GIVEN	Sampling Condition:	Cool & Intact
Project Location:	NOT GIVEN	Sample Received By:	Celey D. Keene

#### Sample ID: #7 (H701349-07) BTEX 80218

BTEX 8021B	mg/	kg	Analyz	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC		
Benzene*	<0.050	0.050	05/20/2017	ND	1.87	93.3		RPD	Qualifier
Toluene*	< 0.050	0.050	05/20/2017	ND	1.85		2.00	1.63	
Ethylbenzene*	< 0.050	0.050	05/20/2017	ND		92.8	2.00	1.34	
Total Xylenes*	<0.150	0.150	05/20/2017		1.94	96.9	2.00	1.70	
Total BTEX	<0.300	0.300	05/20/2017	ND ND	5.47	91.1	6.00	1.36	
Surrogate: 4-Bromofluorobenzene (PIL	103 %	6 72-148							
Chloride, SM4500Cl-B	mg/l			d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Voluminos		
Chloride	48.0	16.0	05/20/2017	ND			True Value QC	RPD	Qualifier
TPH 8015M	mg/k	g		d By: MS	448	112	400	7.41	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	20		12.11.11.11.11.1		
GRO C6-C10	<10.0	10.0	05/20/2017		BS	% Recovery	True Value QC	RPD	Qualifier
DRO >C10-C28	977			ND	185	92.4	200	4.63	
EXT DRO >C28-C36		10.0	05/20/2017	ND	186	92.8	200	5.81	
	480	10.0	05/20/2017	ND					
urrogate: 1-Chlorooctane	71.0 %	28.3-164							
urrogate: 1-Chlorooctadecane	92.7 %	34.7-157							

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Received: Reported: Project Name: Project Number: Project Location:	05/19/2017 05/22/2017 RHUMBUS STATE UNION #1 NONE GIVEN NOT GIVEN	Sampling Date: Sampling Type: Sampling Condition: Sample Received By:	05/19/2017 Soil Cool & Intact Celey D, Keene
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#### Sample ID: #8 (H701349-08) VODDAR

BTEX 8021B	mg/	kg	Analyz	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	
Benzene*	<0.050	0.050	05/20/2017	ND	1.87	93.3			Qualifier
Toluene*	<0.050	0.050	05/20/2017	ND	1.86	92.8	2.00	1.63	
Ethylbenzene*	< 0.050	0.050	05/20/2017	ND	1.94		2.00	1.34	
Total Xylenes*	<0.150	0.150	05/20/2017	ND	5.47	96.9	2.00	1.70	
Total BTEX	<0.300	0.300	05/20/2017	ND	3,47	91.1	6.00	1.36	
Surrogate: 4-Bromofluorobenzene (PIL	101 %	72-148							
Chloride, SM4500CI-8	mg/l		Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	Taua Malue DC		
Chloride	384	16.0	05/20/2017	ND	448		True Value QC	RPD	Qualifier
TPH 8015M	mg/k	g		d By: MS	770	112	400	7.41	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	-		
GRO C6-C10	<10.0	10.0	05/20/2017	ND			True Value QC	RPD	Qualifier
DRO >C10-C28	1430	10.0	05/20/2017		185	92.4	200	4.63	
XT DRO >C28-C36	300	10.0	05/20/2017	ND ND	186	92.8	200	5.81	
urrogate: 1-Chlorooctane	70.1 %	28.3-164							
urrogate: 1-Chlorooctadecane	87.4%	20.2 101							

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Received:	05/19/2017		
Reported:		Sampling Date:	05/19/2017
Project Name:	05/22/2017 RHUMBUS STATE UNION #1	Sampling Type:	Soil
Project Number:	NONE GIVEN	Sampling Condition:	Cool & Intact
Project Location:	NOT GIVEN	Sample Received By:	Celey D. Keene

# Sample ID: #9 (H701349-09)

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BTEX 8021B	mg/	kg	Analyz	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC		
Benzene*	<0.050	0.050	05/20/2017	ND	1.87			RPD	Qualifier
Toluene*	<0.050	0.050	05/20/2017	ND		93.3	2.00	1.63	
Ethylbenzene*	< 0.050	0.050	05/20/2017		1.86	92.8	2.00	1.34	
Total Xylenes*	<0.150	0.150		ND	1.94	96.9	2.00	1.70	
Total BTEX	<0.300	0.300	05/20/2017 05/20/2017	ND	5.47	91.1	6.00	1.36	
Surrogate: 4-Bromofluorobenzene (PIL	98.6 %	6 72-148							
Chloride, SM4500CI-B	mg/k	- 140		d By: AC					
Analyte	Result	Reporting Limit	Analyzed	alla crutylege in a second					
Chloride	496	16.0		Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
PH 8015M	mg/k		05/20/2017	ND 448	112	400	7.41		
Analyte			Analyze	a By: MS				_	
RO C6-C10	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	0
	<10.0	10.0	05/20/2017	ND	185	92.4			Qualifier
RO >C10-C28	1970	10.0	05/20/2017	ND	186	92.8	200	4.63	
XT DRO >C28-C36	391	10.0	05/20/2017	ND	100	92.8	200	5.81	
urrogate: 1-Chlorooctane	60.8 %	28.3-164							
urrogate: 1-Chlorooctadecane	77.5 %	34.7-157							

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AKA ENERGY GROUP, LLC HARLEY EVERHART P. O. DRAWER 70 ARTESIA NM, 88211 Fax To: (575) 677-5152

Received:	05/19/2017	Complian Date	
Reported:	05/22/2017	Sampling Date:	05/19/2017
Project Name:	RHUMBUS STATE UNION #1	Sampling Type:	Soil
Project Number:	NONE GIVEN	Sampling Condition:	Cool & Intact
Project Location:	NOT GIVEN	Sample Received By:	Celey D. Keene

# Sample ID: #10 (H701349-10)

BTEX 8021B	mg/	/kg	Analyz	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	225	
Benzene*	<0.050	0.050	05/20/2017	ND	1.87	93.3		RPD	Qualifier
Toluene*	<0.050	0.050	05/20/2017	ND	1.86	92.8	2.00	1.63	
Ethylbenzene*	<0.050	0.050	05/20/2017	ND	1.94		2.00	1.34	
Total Xylenes*	<0.150	0.150	05/20/2017	ND	5.47	96.9	2.00	1.70	
Total BTEX	<0.300	0.300	05/20/2017	ND	5.47	91.1	6.00	1.36	
Surrogate: 4-Bromofluorobenzene (PIL	101 %	6 72-148							
Chloride, SM4500CI-B	mg/l			d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	202	
Chloride	1500	16.0	05/20/2017	ND	448			RPD	Qualifier
TPH 8015M	mg/k	g		d By: MS	140	112	400	7.41	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	9/ D	-		
GRO C6-C10	<10.0	10.0	05/20/2017			% Recovery	True Value QC	RPD	Qualifier
RO >C10-C28	14.1	10.0		ND	185	92.4	200	4.63	
XT DRO >C28-C36	23,1	10.0	05/20/2017	ND	185	92.8	200	5.81	
		10.0	05/20/2017	ND					
urrogate: 1-Chlorooctane	74.1 %	28.3-164							
urrogate: 1-Chlorooctadecane	77.1 %	34.7-157							

# Cardinal Laboratories

# \*=Accredited Analyte

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

# Analytical Results For:

AKA ENERGY GROUP, LLC HARLEY EVERHART P. O. DRAWER 70 ARTESIA NM, 88211 Fax To: (575) 677-5152

Received:	05/19/2017		
Reported:	05/22/2017	Sampling Date:	05/19/2017
Project Name: Project Number:	RHUMBUS STATE UNION #1	Sampling Type: Sampling Condition:	Soil Cool & Intact
Project Location:	NONE GIVEN NOT GIVEN	Sample Received By:	Celey D. Keene

#### Sample ID: X (H701349-11) BTEX 80218

. . . .

BTEX 8021B	mg	/kg	Analyz	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	0/ C	-		
Benzene*	< 0.050	0.050	05/20/2017			% Recovery	True Value QC	RPD	Qualifier
Toluene*	< 0.050	0.050	05/20/2017	ND	1.87	93.3	2.00	1.63	
Ethylbenzene*	< 0.050	0.050		ND	1.86	92.8	2.00	1.34	
Total Xylenes*	<0.150		05/20/2017	ND	1.94	96.9	2.00	1.70	
Total BTEX		0.150	05/20/2017	ND	5.47	91.1	6.00	1.35	
	<0.300	0.300	05/20/2017	ND					
Surrogate: 4-Bromofluorobenzene (PIL	103.9	6 72-148							
Chloride, SM4500CI-B	mg/l			d By: AC					
Analyte	Result	Reporting Limit							
Chloride	336		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TPH 8015M		16.0	05/20/2017	ND	448	112	400	7.41	
	mg/k	g	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	R/ D			
RO C6-C10	<10.0	10.0	05/20/2017			% Recovery	True Value QC	RPD	Qualifier
RO >C10-C28	998	10.0		ND	185	92.4	200	4.63	
XT DR0 >C28-C36	212		05/20/2017	ND	185	92.8	200	5.81	
	414	10.0	05/20/2017	ND					
urrogate: 1-Chlorooctane	68.7 %	28.3-164							
irrogaie: 1-Chloroociadecane	80.3 %	34.7-157							

# Cardinal Laboratories

PLEASE NOTE: Lipsibly and Damages. Cerdinal's liability and client's enclusive remedy for any dam ensing, whether based in contract or tort, shall be limited to the answert paid by client for analyses. All claims, inducing those for negligence and any other base whittpewer shall be reemed waived unless made in writing and received by Cardinal within thich (30) clays after completion of the applicable service. In no event shall Cardinal be lable for invidental or consequences inducing, without limitation, business meanings, reservices, response of yours, rat subschemes, affiliates or successors arising out of or nations to the performance of the services hereunder by Cardinal, regenciess of whether succ dam is based upon any of the above stated reasons or comewake. Results relate privit the services identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratorias.

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AKA ENERGY GROUP, LLC HARLEY EVERHART P. O. DRAWER 70 ARTESIA NM, 88211 Fax To: (575) 677-5152

Received; Reported: Project Name: Project Number: Project Location:	05/19/2017 05/22/2017 RHUMBUS STATE UNION #1 NONE GIVEN NOT GIVEN	Sampling Date: Sampling Type: Sampling Condition: Sample Received By:	05/19/2017 Soil Cool & Intact Celey D. Keene	
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#### Sample ID: #11 (H701349-12) BTEX 80218

BTEX 8021B	mg,	/kg	Analyz	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC		
Benzene*	<0.050	0.050	05/20/2017	ND	1.87			RPD	Qualifier
Toluene*	< 0.050	0.050	05/20/2017	ND	1.86	93.3	2.00	1.63	
Ethylbenzene*	< 0.050	0.050	05/20/2017	ND		92.8	2.00	1.34	
Total Xylenes <sup>≈</sup>	<0.150	0.150	05/20/2017	ND	1.94	96.9	2.00	1.70	
Total BTEX	<0.300	0.300	05/20/2017	ND	5.47	91.1	6.00	1.36	
Surrogate: 4-Bromofluorobenzene (PIL	103 %	6 72-148							
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	84 D	-		
Chloride	272	16.0	05/20/2017	ND		% Recovery	True Value QC	RPD	Qualifier
TPH 8015M	mg/k		Analyzed By: MS		448	112	400	7.41	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	0.5				
GRO C6-C10	<10.0	10.0	05/20/2017		BS	% Recovery	True Value QC	RPD	Qualifier
RO >C10-C28	22.3	10.0		ND	185	92.4	200	4.63	
XT DRO >C28-C36	31.7		05/20/2017	ND	186	92.8	200	5.81	
	3417	10.0	05/20/2017	ND					
urrogate: 1-Chlorooctane	83.2 %	28.3-164							
urrogate: 1-Chlorooctadecane	86.0 %	34.7-157							

# Cardinal Laboratories

PLEASE NOTE: Leadiny and Damages. Caronal's lability and cleant's exclusive remedy for any clean ansing, whether based in contract or tort, shall be limited to the amount paid by cleant for analyses. All dams, including those for negligence and any other duse whether which whether which which whether and received by Caronal within thinty (30) days after completion of the applicable service. In no event shall Caronal be listed for contexpuential campage, including, whose limited networks, but days of use, or loss of profile incurred by cleant, its subsidianes, affiliates or successors arising out of or related to the performance of the services hereunder by Caronal, regardless of whether such dam's based upon any of the above trated relations or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Caronal Laboratories.

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# Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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 SM4500CI-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

Cardinal Laboratories

PLEASE NOTE: Labity and Damages. Candinal's labity and dients addusive remedy for any daim arrang, whether based in contract or bot, shall be limited to the amount bad by dient for analyses. All dams, including those for negligence and any other base whetpower shall be deemed waived unless made in whiting and received by Cardinal luttin thinty (30) dies after completion of the applicable service. In no event shall Cardinal be labele for incidentel or consequential damages, admits based upon any of the above stated reasons or otherwise. Results relate only to the semides identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratoria.

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST



Page 16 of 16



June 28, 2017

HARLEY EVERHART FRONTIER FIELD SERVICES 4200 SKELLY DRIVE, SUITE 700 TULSA, OK 74135

**RE: RHOMBUS** 

Enclosed are the results of analyses for samples received by the laboratory on 06/27/17 14:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated 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,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	06/27/2017	Sampling Date:	06/27/2017
Reported:	06/28/2017	Sampling Type:	Soil
Project Name:	RHOMBUS	Sampling Condition:	Cool & Intact
Project Number:	REMEDIATION PROJECT	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

# Sample ID: 2-A (H701679-01)

Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/28/2017	ND	480	120	400	10.5	

#### Sample ID: 2-B (H701679-02)

Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/28/2017	ND	480	120	400	10.5	

# Sample ID: 2-C (H701679-03)

Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	06/28/2017	ND	480	120	400	10.5	

#### Sample ID: 6-A (H701679-04)

Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	864	16.0	06/28/2017	ND	480	120	400	10.5	

#### Cardinal Laboratories

#### \*=Accredited Analyte

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

Received:	06/27/2017	Sampling Date:	06/27/2017
Reported:	06/28/2017	Sampling Type:	Soil
Project Name:	RHOMBUS	Sampling Condition:	Cool & Intact
Project Number:	REMEDIATION PROJECT	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		Tuniara Oldakei

# Sample ID: 6-B (H701679-05)

Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	06/28/2017	ND	432	108	400	0.00	

#### Sample ID: 6-C (H701679-06)

Chloride, SM4500CI-B	mg/kg		Analyzed By: AC		_				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	06/28/2017	ND	432	108	400	0.00	

#### Sample ID: 10-A (H701679-07)

Chloride, SM4500CI-B	mg	/kg	Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	06/28/2017	ND	432	108	400	0.00	

# Sample ID: 10-B (H701679-08)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/28/2017	ND	432	108	400	0.00	

#### Sample ID: 10-C (H701679-09)

Chloride, SM4500CI-B	mg	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Oualifier
Chloride	1040	16.0	06/28/2017	ND	432	108	400	0.00	

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### **Notes and Definitions**

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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.
30	Chloride by SM4500CI-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

#### Cardinal Laboratories

#### \*=Accredited Analyte

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

Page 5 of 5



June 28, 2017

HARLEY EVERHART FRONTIER FIELD SERVICES 4200 SKELLY DRIVE, SUITE 700 TULSA, OK 74135

**RE: RHOMBUS** 

Enclosed are the results of analyses for samples received by the laboratory on 06/27/17 14:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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 <u>www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</u>.

Cardinal Laboratories is accreditated 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,

Celey D. Keene

Celey D. Keene Lab Director/Quality Manager



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

06/27/2017	Sampling Date:	06/27/2017
06/28/2017		
	Sampling Type:	Soil
RHUMBUS	Sampling Condition:	Cool & Intact
REMEDIATION PROJECT		
NONE GIVEN	bumple Received by.	Tamara Oldaker
	06/28/2017 RHOMBUS REMEDIATION PROJECT	06/28/2017     Sampling Date.       RHOMBUS     Sampling Condition:       REMEDIATION PROJECT     Sample Received By:

# Sample ID: REPEAT SAMPLE #1 (H701680-01)

Chloride, SM4500CI-B	B mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value OC	RPD	Qualifier
Chloride	688	16.0	06/28/2017	ND	432	108	400	0.00	Quanter

#### Sample ID: REPEAT SAMPLE #5 (H701680-02) Chloride, SM4500CI-B

Chickle, 514500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1310	16.0	06/28/2017	ND	432	108	400	0.00	Quonner

#### Cardinal Laboratories

#### \*=Accredited Analyte

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Celler D. Keene



# Notes and Definitions

- 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 SM4500CI-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

#### Cardinal Laboratories

#### \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All dams, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such daim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Cellery D. Freene





June 29, 2017

HARLEY EVERHART FRONTIER FIELD SERVICES 4200 SKELLY DRIVE, SUITE 700 TULSA, OK 74135

**RE: RHOMBUS** 

Enclosed are the results of analyses for samples received by the laboratory on 06/29/17 7:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated 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,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	06/29/2017	Sampling Date:	06/29/2017
Reported:	06/29/2017	Sampling Type:	Soil
Project Name:	RHOMBUS	Sampling Condition:	Cool & Intact
Project Number:	CHLORIDE RESAMPLES	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN	sample received by:	ramara Oluakei

# Sample ID: 6- A (H701704-01)

Chloride, SM4500CI-B	l-B mg/kg			Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	06/29/2017	ND	464	116	400	7.14	Quante.

# Sample ID: 6- B (H701704-02)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1440	16.0	06/29/2017	ND	464	116	400	7 14	

#### Sample ID: 6- C (H701704-03)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Oualifier
Chloride	784	16.0	06/29/2017	ND	464	116	400	7.14	

### Sample ID: 10- A (H701704-04)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	06/29/2017	ND	464	116	400	7.14	

#### Cardinal Laboratories

#### \*=Accredited Analyte

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

Received:	06/29/2017	Sampling Date:	06/20/2017
Reported:	06/29/2017		06/29/2017
Project Name:	RHOMBUS	Sampling Type:	Soil
		Sampling Condition:	Cool & Intact
Project Number:	CHLORIDE RESAMPLES	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		I difiara Oluaker

#### Sample ID: 10 - B (H701704-05) Chinada char

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/29/2017	ND	464	116	400	7.14	- Contract

#### Sample ID: 10 - C (H701704-06) Chlorida EMAEDOCI P

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value OC	RPD	Qualifier
Chloride	112	16.0	06/29/2017	ND	464	116	400	7.14	Quanter

# Sample ID: REPEAT SAMPLE #1 (H701704-07)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value OC	RPD	Qualifier
Chloride	1220	16.0	06/29/2017	ND	464	116	400	7.14	Quanter

# Sample ID: REPEAT SAMPLE #2 (H701704-08)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value OC	RPD	Oualifier
Chloride	480	16.0	06/29/2017	ND	464	116	400	7.14	Quanter

#### Cardinal Laboratories

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Celeg Detreene



#### Notes and Definitions

- 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 SM4500CI-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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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 4 of 5

Laboratories

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Project Manager Wenting Field Secures	(Hk Earna) BI	BILL TO		
enager.	P.O. #:		ANALYSIS REQUEST	
Address: 1001 Canaco 12d.	Company:			
City: Malya senar State: NA2	Zip: 58269			
Phone #: 575.5/34522 Fax #:				
Project #: Project Owner:		AL.		
Project Name: Rhom Los Chbrick R				
Project Location: P/	state:	Zip:		
Sampler Name: 11, 0 1 havetlan	Phone #:			
FOR LARUNE CHAIN ALAN LINE C	Fax #:			
	MATRIX	SAMPLING		
Lab I.D. Sample I.D.	R : BASE: COOL	lorides		
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4 16-4		56 41 4		
5 18-3		4 54 20		
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PEASE NOTE: Labelity and Damages. Cardwards babley and cleres exclasive remark for any claim asking where based in contract or on what is inneed to the ansunt part by the cleret to be associated by the cleret to be as	or any claim arrang wheney based in contrast or for shall be limited to the anount paid by the client for the be deemed waived unless made in scotting and research or for another to the anount paid by the client for the	e amount paid by the client for the		
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1-S	Received By:	ult: 1 Yes 1	No Add'l Phone #: No Add'l Fax #:	
Relinquished By: Date:	Received Rv.	REMARKS:	1	
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Delivered By: (Circle One) 7:35	Sample Condition CHECKED	heurstarte aka ener	2	Jac
	2 0 Cool Intact (Initials)	1	7	

0



July 05, 2017

HARLEY EVERHART FRONTIER FIELD SERVICES 4200 SKELLY DRIVE, SUITE 700 TULSA, OK 74135

**RE: RHOMBUS** 

Enclosed are the results of analyses for samples received by the laboratory on 06/30/17 16:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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 <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceg.texas.gov/field/ga/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceg.texas.gov/field/ga/lab">www.tceg.texas.gov/field/ga/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceg.texas.gov/field/ga/lab">www.tceg.texas.gov/field/ga/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceg.texas.gov/field/ga/lab">www.tceg.texas.gov/field/ga/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceg.texas.gov/field/ga/lab">www.tceg.texas.gov/field/ga/lab</a> accredited certif.html.

Cardinal Laboratories is accreditated 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,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	06/30/2017	Sampling Date:	06/30/2017
Reported:	07/05/2017	Sampling Type:	
Project Name:	RHOMBUS	Sampling Condition:	Soil
Project Number:	CHLORIDE RESAMPLE	Sample Received By:	Cool & Intact
Project Location:	NONE GIVEN	Sample Received by.	Tamara Oldaker

# Sample ID: REPEAT SAMPLE #1 (H701732-01)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	848	16.0	07/05/2017	ND	416	104	400	3.77	Quanter

# Sample ID: 6- A (H701732-02)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value OC	RPD	Qualifier
Chloride	384	16.0	07/05/2017	ND	416	104	400	3.77	Quonner

# Sample ID: 6- B (H701732-03)

Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value OC	RPD	Qualifier
Chloride	464	16.0	07/05/2017	ND	416	104	400	3.77	Quanter

#### Sample ID: 6- C (H701732-04)

Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value OC	RPD	Qualifier
Chloride	208	16.0	07/05/2017	ND	416	104	400	3 77	Quantier

#### Cardinal Laboratories

#### \*=Accredited Analyte

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Celeg D. Keene



# Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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 SM4500CI-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

**Cardinal Laboratories** 

#### \*=Accredited Analyte

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476



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Page 4 of 4



July 07, 2017

HARLEY EVERHART FRONTIER FIELD SERVICES 4200 SKELLY DRIVE, SUITE 700 TULSA, OK 74135

**RE: RHOMBUS** 

Enclosed are the results of analyses for samples received by the laboratory on 07/06/17 15:06.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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 <u>www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</u>.

Cardinal Laboratories is accreditated 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,

Celeg D. Keene

Celey D. Keene Lab Director/Quality Manager


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

Received:	07/06/2017	Sampling Date:	07/07/07/07
Reported:	07/07/2017		07/06/2017
1		Sampling Type:	Soil
Project Name:	RHOMBUS	Sampling Condition:	Cool & Intact
Project Number:	CHLORIDE REPEAT		
Project Location:		Sample Received By:	Tamara Oldaker
Hoject Ebcation.	NONE GIVEN		

### Sample ID: CHLORIDE REPEAT SAMPLE #1 (H701745-01)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value OC	RPD	Qualifier
Chloride	80.0	16.0	07/06/2017	ND	432	108	400	0.00	Quanter

### Cardinal Laboratories

### \*=Accredited Analyte

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Celleg D. Keine

Celey D. Keene, Lab Director/Quality Manager



### Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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 SM4500CI-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

### Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any dam ansing, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed valved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such dalim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celler D. Kerne

Celey D. Keene, Lab Director/Quality Manager

Laboratories

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

01+2-000 (010) VMJ 0202-000 (010)	10		
Company Name: Frankiss Filed Services (	( Ake Energy)	BILL TO	ANALYSIS REQUEST
	111	P.O. #:	
Address: 1001 Cana ic 121	0	Company:	
\$	Zip: 58264	Attn:	
e#: 575518432 - Fax#:		Address:	
Project #: Project Owner:		city:	
Project Name: Rhow laws Chlorick R	si si	State: Zip:	
Project Location: Rhandows	P	Phone #:	
Sampler Name: 11-1 Sally	Fa	Fax #:	
FOR LABUSE OWLY	MATRIX	PRESERV. SAMPLING	
Lab I.D. Sample I.D.	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER :	ACID/BASE: ICE / COOL OTHER :	TIME Ch knich
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Relinquished By: 7. 6.17	Received By:		Phone Result:    Yes    No Add'I Phone #: Fax Result:    Yes    No Add'I Fax #: REMARKS:
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Sampler - UPS - Bus - Other: 4,82 Connected S. S. S. Cool Intact Sampler - UPS - Bus - Other: 4,82 Connected S.	ted S.WS Pres Pres	(Initials)	

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



October 11, 2017

HARLEY EVERHART FRONTIER FIELD SERVICES 4200 SKELLY DRIVE, SUITE 700 TULSA, OK 74135

**RE: RHOMBUS** 

Enclosed are the results of analyses for samples received by the laboratory on 10/10/17 13:26.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated 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,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	10/10/2017	Sampling Date:	10/10/2017
Reported:	10/11/2017	Sampling Type:	Soil
Project Name:	RHOMBUS	Sampling Condition:	Cool & Intact
Project Number:	REMEDIATION PROJECT/ TPH CONC.	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

### Sample ID: #4 - TPH CONCENTRATION LEVELS (H702723-01)

TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/10/2017	ND	224	112	200	3.60	
DRO >C10-C28	<10.0	10.0	10/10/2017	ND	230	115	200	8.94	
EXT DRO >C28-C36	<10.0	10.0	10/10/2017	ND					
Surrogate: 1-Chlorooctane	77.7	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	77.1	% 34.7-15	7						

### Sample ID: #7 - TPH CONCENTRATION LEVELS (H702723-02)

TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/10/2017	ND	224	112	200	3.60	
DRO >C10-C28	<10.0	10.0	10/10/2017	ND	230	115	200	8.94	
EXT DRO >C28-C36	<10.0	10.0	10/10/2017	ND					
Surrogate: 1-Chlorooctane	70.9 9	28.3-16	4						
Surrogate: 1-Chlorooctadecane	67.7 9	34.7-15	7						

### **Cardinal Laboratories**

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	10/10/2017	Sampling Date:	10/10/2017
Reported:	10/11/2017	Sampling Type:	Soil
Project Name:	RHOMBUS	Sampling Condition:	Cool & Intact
Project Number:	REMEDIATION PROJECT/ TPH CONC.	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

### Sample ID: #8 - TPH CONCENTRATION LEVELS (H702723-03)

TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/10/2017	ND	224	112	200	3.60	
DRO >C10-C28	<10.0	10.0	10/10/2017	ND	230	115	200	8.94	
EXT DRO >C28-C36	<10.0	10.0	10/10/2017	ND					
Surrogate: 1-Chlorooctane	63.1	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	59.5	% 34.7-15	7						

### Sample ID: #9 - TPH CONCENTRATION LEVELS (H702723-04)

TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/10/2017	ND	224	112	200	3.60	
DRO >C10-C28	<10.0	10.0	10/10/2017	ND	230	115	200	8.94	
EXT DRO >C28-C36	<10.0	10.0	10/10/2017	ND					
Surrogate: 1-Chlorooctane	66.4 %	28.3-16	4						
Surrogate: 1-Chlorooctadecane	61.4 %	34.7-15	7						

### **Cardinal Laboratories**

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	10/10/2017	Sampling Date:	10/10/2017
Reported:	10/11/2017	Sampling Type:	Soil
Project Name:	RHOMBUS	Sampling Condition:	Cool & Intact
Project Number:	REMEDIATION PROJECT/ TPH CONC.	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

### Sample ID: #X - TPH CONCENTRATION LEVELS (H702723-05)

TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/10/2017	ND	224	112	200	3.60	
DRO >C10-C28	<10.0	10.0	10/10/2017	ND	230	115	200	8.94	
EXT DRO >C28-C36	<10.0	10.0	10/10/2017	ND					
Surrogate: 1-Chlorooctane	55.6	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	55.9	% 34.7-15	7						

### **Cardinal Laboratories**

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



### **Notes and Definitions**

- 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

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST 1941

### 101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

	Fronting Field Services CARE Engrav	BILL TO	ANALYSIS REDUEST
Project Manager:			
Address: (oe)	Cenoco ICO.	Company:	
City: Moljan	State: N 41 Zip: 58260		
Phone #: 575		Address: Q	
Project #:	Project Owner:	Y	
Project Name: 7	PH Concentration	Zip:	
Project Location:	Rhom bus Remediction Prosect	Phone #:	
Sampler Name: 4		Fax #:	
FOR LAB USE ONLY	-	ESERV. SAMPLING	
Lab I.D. H702723	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER	SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER : DATE TIME	
6# 1	- TPH Concentration Levels U	1 10.16 11	
10		1 10:10 11:11	
		1 10.10 11:38 1	
1.1		- 10.10 12.27 1	
		1 91.91	
PLEASE NOTE: Liability and Dam	PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim initial whether based in contract or tort shall be limited to the associate active remedy for any claim initial whether based in contract or tort shall be limited to the associate active remedy for any claim initial whether based in contract or tort shall be limited to the associate active remedy for any claim initial whether based in contract or tort shall be limited to the associate active remedy for any claim initial whether based in contract or tort shall be limited to the associate active remedy for any claim initial whether based in contract or tort shall be limited to the associate active remedy for any claim initial whether based in contract or tort shall be limited to the associate active remedy for any claim initial whether based in contract or tort shall be limited to the associate active remedy for any claim initial whether based in contract or tort shall be limited to the associate active remedy for any claim initial whether based in contract or tort shall be limited to the associate active remedy for any claim initial whether based in contract or tort shall be limited to the associate active remedy for any claim initial whether based in contract or tort shall be limited to the associate active remedy for any claim initial whether based in contract or tort shall be limited to the associate active remedy for any claim initial whether based in contract or tort shall be limited to the associate active remedy for any claim initial whether based in contract or tort shall be limited to the associate active remedy for any claim initial whether based in contract or tort shall be limited to the associate active remedy for any claim initial whether based in contract or tort shall be limited to the associate active remedy for any claim initial whether based in contract or tort shall be limited to the associate active remedy for any claim initial whether based in contract or tort shall be limited tor tor tort s	eed in contract or tool shall be Brilled in the service shall be the	
affiliates or successors arising out	vages, including w hereunder by Car		
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Delivered By: (Circle One)	Time:	on CHECKEDBY: A coco hord	J. 45.
Sampler - UPS - Bus - Other:	2.62 2.85%	Initials	102

t Cardinal cannot accept verbal changes. Vease fax written changes to (575) 3952326



October 11, 2017

HARLEY EVERHART FRONTIER FIELD SERVICES 4200 SKELLY DRIVE, SUITE 700 TULSA, OK 74135

**RE: RHOMBUS** 

Enclosed are the results of analyses for samples received by the laboratory on 10/10/17 13:26.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated 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,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	10/10/2017	Sampling Date:	10/10/2017
Reported:	10/11/2017	Sampling Type:	Soil
Project Name:	RHOMBUS	Sampling Condition:	Cool & Intact
Project Number:	AUGERED SAMPLES ( CHLORIDES)	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

### Sample ID: #1 (AUGARED CHLORIDE SAMPLE) (H702724-01)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	10/11/2017	ND	432	108	400	3.64	

### Sample ID: #5 ( AUGARED CHLORIDE SAMPLE ) (H702724-02)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	10/11/2017	ND	432	108	400	3.64	

### Sample ID: #10 ( AUGARED CHLORIDE SAMPLE ) (H702724-03)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/11/2017	ND	432	108	400	3.64	

### Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the sample identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



### **Notes and Definitions**

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476





October 12, 2017

HARLEY EVERHART FRONTIER FIELD SERVICES 4200 SKELLY DRIVE, SUITE 700 TULSA, OK 74135

**RE: RHOMBUS** 

Enclosed are the results of analyses for samples received by the laboratory on 10/10/17 13:26.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated 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,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	10/10/2017	Sampling Date:	10/10/2017
Reported:	10/12/2017	Sampling Type:	Soil
Project Name:	RHOMBUS	Sampling Condition:	Cool & Intact
Project Number:	E. OF THE RELEASE LOCATION	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

### Sample ID: EAST OF LEAK LOCATION (H702725-01)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	10/11/2017	ND	1.97	98.4	2.00	0.444	
Toluene*	<0.050	0.050	10/11/2017	ND	1.78	89.1	2.00	0.693	
Ethylbenzene*	<0.050	0.050	10/11/2017	ND	1.83	91.5	2.00	0.604	
Total Xylenes*	<0.150	0.150	10/11/2017	ND	5.63	93.8	6.00	0.116	
Total BTEX	<0.300	0.300	10/11/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	111 9	% 72-148	}						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/11/2017	ND	432	108	400	3.64	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/10/2017	ND	224	112	200	3.60	
DRO >C10-C28	<10.0	10.0	10/10/2017	ND	230	115	200	8.94	
EXT DRO >C28-C36	<10.0	10.0	10/10/2017	ND					
Surrogate: 1-Chlorooctane	77.4	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	81.1	% 34.7-15	7						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



### **Notes and Definitions**

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Project Manager:	HEaling) PO # DILL IU	ANALYSIS REQUEST
Address: 100 ( Conce Ref.	Company:	
City: M/s / genes State: NA	Zip: \$8 280	
Phone # 505 5134 Sz Fax #:		
Project #: Project Owner:		
Project Name: East of The Release	o cotion	
os Rea	Proved Phone #:	
: Hack Eucho		
FOR LAB USE ONLY	MATRIX	
Lab I.D. Sample I.D. H102726	(G)RAB OR (C)OM # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER : DATE TME	STEX Chlerides Extende
Sast of head hospitian		×
SSE NOTE: Labbity and Domages. Cardinal's liability and client's exclusive remedy for a see. All claims including those for negligence and any other cause whatsoever shall be to include to correspond damages.	PLEASE NOTE: Lubbity and Danages. Cardinal's liability and client's exclusive remedy for any claim analyses. All daims including those for nogligence and any other cause whothcover shall be deemed year of the based in contract or tort, shall be limited to the amount pald by the client for the service. In or work shall Curdinal within 30 days after competion of the applicable termined y brains including and received by Cardinal within 30 days after competion of the applicable.	
Relinquished By: Direction of the performance of terrelated try Caedinal transform, but a terrelated to the performance of terrelated to the Caedinal terrelated to the Caedina terrelated to the Caedina terrelat	Pelinquished By: Date: Date: Received By: Date: Received By: Remarks. Time: Time:	" Ves No Add'I Phone #: Ves No Add'I Phone #:
Delivered By: (Circle One) # 15 Sampler - UPS - Bus - Other: 2.60 2.850 Cool Intact Cool Intact (Withdist) t Cardinal cannot accent verbal changes Direct Cool Into No No No	2.85° Sample Condition CHECKED BA NUVERAVI	



October 18, 2017

HARLEY EVERHART FRONTIER FIELD SERVICES 4200 SKELLY DRIVE, SUITE 700 TULSA, OK 74135

**RE: RHOMBUS** 

Enclosed are the results of analyses for samples received by the laboratory on 10/12/17 13:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated 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,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	10/12/2017	Sampling Date:	10/12/2017
Reported:	10/18/2017	Sampling Type:	Soil
Project Name:	RHOMBUS	Sampling Condition:	Cool & Intact
Project Number:	TPH CONCENTRATION 2FT AUGER HOLE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

### Sample ID: #4 - TPH CONCENTRATION AUGER HOLES (H702761-01)

TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/13/2017	ND	216	108	200	4.83	
DRO >C10-C28	<10.0	10.0	10/13/2017	ND	229	114	200	8.00	
EXT DRO >C28-C36	<10.0	10.0	10/13/2017	ND					
Surrogate: 1-Chlorooctane	74.8	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	76.1	% 34.7-15	7						

### Sample ID: #7 - TPH CONCENTRATION AUGER HOLES (H702761-02)

TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/13/2017	ND	216	108	200	4.83	
DRO >C10-C28	<10.0	10.0	10/13/2017	ND	229	114	200	8.00	
EXT DRO >C28-C36	<10.0	10.0	10/13/2017	ND					
Surrogate: 1-Chlorooctane	70.1	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	65.9	% 34.7-15	7						

### **Cardinal Laboratories**

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	10/12/2017	Sampling Date:	10/12/2017
Reported:	10/18/2017	Sampling Type:	Soil
Project Name:	RHOMBUS	Sampling Condition:	Cool & Intact
Project Number:	TPH CONCENTRATION 2FT AUGER HOLE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

### Sample ID: #8 - TPH CONCENTRATION AUGER HOLES (H702761-03)

TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/13/2017	ND	216	108	200	4.83	
DRO >C10-C28	<10.0	10.0	10/13/2017	ND	229	114	200	8.00	
EXT DRO >C28-C36	<10.0	10.0	10/13/2017	ND					
Surrogate: 1-Chlorooctane	68.7	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	70.0	% 34.7-15	7						

### Sample ID: #9 - TPH CONCENTRATION AUGER HOLES (H702761-04)

TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/13/2017	ND	216	108	200	4.83	
DRO >C10-C28	<10.0	10.0	10/13/2017	ND	229	114	200	8.00	
EXT DRO >C28-C36	<10.0	10.0	10/13/2017	ND					
Surrogate: 1-Chlorooctane	63.6 9	28.3-16	4						
Surrogate: 1-Chlorooctadecane	62.8 9	% 34.7-15	7						

### **Cardinal Laboratories**

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	10/12/2017	Sampling Date:	10/12/2017
Reported:	10/18/2017	Sampling Type:	Soil
Project Name:	RHOMBUS	Sampling Condition:	Cool & Intact
Project Number:	TPH CONCENTRATION 2FT AUGER HOLE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

### Sample ID: #10 - TPH CONCENTRATION AUGER HOLES (H702761-05)

TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/16/2017	ND	192	96.2	200	3.71	
DRO >C10-C28	<10.0	10.0	10/16/2017	ND	213	107	200	5.52	
EXT DRO >C28-C36	<10.0	10.0	10/16/2017	ND					
Surrogate: 1-Chlorooctane	68.3	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	74.4	% 34.7-15	7						

### **Cardinal Laboratories**

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the sample identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

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.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Laboratories

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240

Company Name:	Fratia Field Services (	Aka Every	P0.#:		ANALYSIS REQUEST
Address: /act	11 Concerco Red.		Company:		
City: M. Gas	1	Zip: \$\$260	Attn:		
Phone #: 575	5755134922 Fax#:		Address: Art	]	
	Project Owner:	16	City:		
ame:	TPH Concentration 2' Huger	er hakes	State: Zip:		
	Rhow bac Remarks	a Preject	Phone #:		
Sampler Name:	Hart S.		Fax #:		
FOR LAB USE ONLY	IT GIN WILL BEST	MATRIX	X PRESERV. SAMPLING		
		ATER		T	
Lab I.D.	Sample I.D.	(G)RAB OR ( # CONTAINE GROUNDW/ WASTEWAT SOIL OIL	SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER : DATE	TIME	
11100101	#4 - TOH Cantolin Hereste	1	1 10.12	1:45 /	
	-	2	/ h:/c	7:50 /	
20 4	2	1	1	1 0018	
4			1 6	1 30:8	
\$	· · · · · · ·		1 01	1 21:3	
PLEASE NOTE: Liability a analyses, All claims includi service. In no event shall C	neve neve	or any claim arising whether based in be deemed waived unless made in w ding without limitation, business inter	contract or tort, shall be inniced to the sincouri- triting and received by Candinal within 30 days : upBions, loss of use, or loss of profils incurred to the form is based upon any of the above stated	paia ury an cenn vi en applicable after completion of the applicable by client, its subiclikaries, i reasons or otherwise,	
Relinquished By:	hed By:		· Ollakop	It: I Yes	□ No Add'I Phone #: □ No Add'I Fax #:
Relinquished By:	h	Received By:	a and my	Email Kaso 113	A O akasnergy . cur
Delivered By Sampler - UPS	Sampler - UPS - Bus - Other: / Stantal 2. 75	Sampl	e Condition CHECKED BY: Intact (Initials) Internation No. CHECKED BY:		
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† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

Page 6 of 6

Frontier Field Services 65 Mercado St. Durango, CO 81301

### Appendix B Initial C141 Form

### State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

	ta Fe, N								
Release Notifica	tion ar	nd C	orrective A	Actio	n				
	OP	ERA	TOR		🖂 Init	ial Report		P: 1 P	
Name of Company Frontier Field Services, LLC	Cont		ohn Prentiss			лат керот		Final Repo	
Address 65 Mercado Street, Suite 250, Durango, CO 8130		Telephone No. 575-676-3528							
Facility Name Rhombus Union St Com 1	Facil	ity Ty	pe Gas/Conde	ensate	transport	line			
Surface Owner Frontier Field Services, LLC Mineral Ow						0. N/A			
LOCAT	NONO	o no			1 MI I IN	0. IV/A			
Unit Letter Section Township Range Feet from the			1	1	-				
D 32 18S 34E	orth/South	Line	Feet from the	East/	West Line	County Lea			
Latitude 32.709870	ON_Long	gitude	-103.588519	W					
NATU	RE OF	REL	EASE						
Type of Release LOPC of heavy condensate from buried pipeline	e Vol		Release Estima	ted	Volume Recovered: 0% liquids recovered from surface. Pipeline Repair Completed.				
Source of Release Pinhole leak discovered in buried heavy	Date	e and H	lour of Occurrence	e				0.110.0.10.0.1	
Condensate pipeline Was Immediate Notice Given?	Unl	nown		~	Date and Hour of Discovery 04/02/2017 @ 16:30 hrs.				
Yes No Not Requi			Whom?	us			_	- 4	
By Whom? Harley Everhart - EHS Technician III			our 04/04/2017 (		21				
Was a Watercourse Reached?	If Y	ES, Vo	lume Impacting t	be Wate					
Yes 🛛 No	N/A	(			or course.				
If a Watercourse was Impacted, Describe Fully.* N/A			RECEIVE	D				-	
On 04/02/2017, Frontier received a call from a pumper in the area about a When the pipeline was identified as Rhombus Union St Com 1, the pipelin Group on 4/3/2017. On 04/04/2017 Frontier estimated the release ~10 - 15b delineate and remove contaminated soils and to restore the integrity of the Describe Area Affected and Cleanup Action Taken.* OCD Pre-Appro The cause and conditions of the leak were identified and alleviated by repa continue until TPH, BTEX, and Benzene levels are below the levels outline soil will be transported to an OCD approved facility for disposal, and the a Frontier will discontinue excavating, obtain samples, and place a 20mil pla exceed six foot below the surface with a minimum of one foot under the pip	bl and mad pipeline, oved Remea iring a secti d in the "Ni irea will be	diately e imme diation diation of the MOCD backfill	diate notifications Plan: the Rhombus Union Guidelines for Re- ed with clean soil.	to NMC	ispatched fivere made in OCD. Excav 1 Pipeline. on of Leaks, ap-rock (cali	eld personnel iternally to the ration will be of Excavation of Spills, and Re iche) formatio	to iden e Envir commer f impac eleases.'	tify the leak. onmental need to ted soils will 'Impacted	
exceed six foot below the surface with a minimum of one foot under the pip over the area including under the pipeline and backfill with clean soil. Folte supporting documentation. I hereby certify that the information given above is true and complete to regulations all operators are required to report and/or file certain release public health or the environment. The acceptance of a C-141 report by should their operations have failed to adequately investigate and remed or the environment. In addition, NMOCD acceptance of a C-141 report federal, state, or local laws and/or regulations.	o the best of e notification the NMOC	letion, l of my k ons and CD mar	nowledge and un perform correcti ked as "Final Rej	derstand ve actic	d that pursu ons for releases not relie	es, place a 20m mesting closure mant to NMOO ases which m eve the operat	cD rule ay end	tic liner acluding all es and anger ability	
ZID			OIL CONS	ERVA	TION I	DIVISION	I		
Signature: any and	1				0.01				
Printed Name: Harley Everhart	Approve	d by Er	nvironmental Spe	cialist:	02				
Title: EHS Technician III	Approva	Date:	4/7/2017	Ех	piration Da	ate:			
E-mail Address: heverhart@akaenergy.com	Conditio	ns of A	pproval:						
Date: 04/07/2017 Phone: 575-513-4922			ched directi	ve		Attached	3		
Attach Additional Sheets If Necessary	1RP-4	1671	fOY17097	75923	30 [r	OY1709	7593	44	

pOY1709759712

Operator/Responsible Party,

The OCD has received the form C-141 you provided on \_4/7/2017\_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number \_\_1R-\_4671\_ has been assigned. Please refer to this case number in all future correspondence.

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete <u>division-approved corrective action</u> for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District \_1\_ office in \_\_Hobbs\_\_\_\_ on or before \_5/7/2017\_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

• Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

• Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

Nominal detection limits for field and laboratory analyses must be provided.

Composite sampling is not generally allowed.

• Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

• If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold OCD Environmental Bureau Chief 1220 South St. Francis Drive Santa Fe, New Mexico 87505 505-476-3465 jim.griswold@state.nm.us Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Attached 🗌

1220 S. St. Fran	cis Dr., Santa	a Fe, NM 87505	5	Sa	nta F	e, NM 875	05							
			Rele	ease Notific	atio	n and Co	orrective A	ction	1					
						<b>OPERA</b>	FOR		🗌 Initia	l Report	$\boxtimes$	Final Report		
Name of Co	mpany F	rontier Fiel	d Servic	es, LLC		Contact John Prentiss								
	1 7			ourango, CO 81	301	Telephone No. 575-676-3528								
Facility Nan	ne Rhomb	us Union St	Com 1			Facility Typ	e Gas/Conder	isate ti	ransport li	ine				
Surface Own	ner Fronti	er Field Sei	rvices, L	LC Mineral O	wner			. N/A						
				LOCA	TIO	N OF REI	LEASE							
Unit Letter	t Letter Section Township Range Feet from the Nort 29 18S 34E						Feet from the	West Line	County Lea					
			La	titude <u>32.7098</u>	870 N	_ Longitude_	-103.588519	<u>W</u>						
				NAT	URE	OF REL	EASE							
Type of Release LOPC of heavy condensate from buried pipeline						Volume of ~10-15bbl.	Release Estimat	ted	Volume Recovered: 0% liquids recovered from surface. Pipeline Repair Completed.					
Source of Rel	ease Pinho	le leak discov	vered in b	uried heavy		Date and H	lour of Occurrenc	Date and Hour of Discovery 04/02/2017						
condensate p Was Immedia		Sirran 9				Unknown	W/hom?		@ 16:30 hrs.					
was immedia	tte Notice C		Yes	] No 🗌 Not Re	quired	If YES, To Whom? Alivia Yu – NMOCD Alivia.yu@state.nm.us								
By Whom? H			Technicia	n III		Date and Hour 04/04/2017 @ ~10:43 hrs.								
Was a Watero	course Reac	hed?	Yes 🗵	] No		If YES, Volume Impacting the Watercourse. N/A								
If a Watercou N/A	rse was Im	pacted, Descr	ibe Fully.'	k										
When the pipe Group on 4/3/2	, Frontier re line was ide 2017. On 04	eceived a call f ntified as Rho /04/2017 Front	rom a pum mbus Unio ier estimat	n Taken.* per in the area abo n St Com 1, the pip ed the release ~10 - tore the integrity o	eline w 15bbl	as immediately and made imm	blocked in. Notifi	cations v	vere made ir	nternally to t	he Envi	ironmental		
continue until soil will be tra Frontier will d exceed six foot over the area i supporting do This remediat	conditions of TPH, BTEX nsported to liscontinue of below the s ncluding un cumentation ion project v	of the leak wer X, and Benzene an OCD appro excavating, obt urface with a 1 der the pipelin I. will be complet	e identified e levels are oved facilit ain sample minimum o ne and back	and alleviated by below the levels ou y for disposal, and s, and place a 20mi of one foot under th cfill with clean soil. nal approval from 1	tlined i the area l plastic e pipeli Follow	n the "NMOCI a will be backfi c liner over the ne, Frontier wi ing completion D	) Guidelines for Ro lled with clean soil area and backfill y ll discontinue exca , Frontier will sub	emediati . If the c with clea vating, c mit a fin	on of Leaks, ap-rock (cal an soil. Shou collect sampl al C-141 req	Spills, and I liche) format ld the depth les, place a 2 juesting closu	Releases ion is ro of the e 0mil pla 1re and	s." Impacted eached, xcavation astic liner including all		
regulations al public health should their c	l operators or the envir perations h iment. In a	are required to conment. The ave failed to a ddition, NMC	o report an acceptance adequately OCD accept	is true and compl ad/or file certain re- ce of a C-141 repor- investigate and re- tance of a C-141 re-	elease 1 rt by th emedia	notifications and ne NMOCD m te contaminati	nd perform correc arked as "Final R on that pose a thre	tive act eport" c eat to g	ions for rele loes not reli round water	eases which eve the oper , surface wa	may er ator of ter, hu	ndanger liability man health		
							OIL CON	SERV	<b>ATION</b>	DIVISIC	)N			
Signature: <i>H</i>	arley Ev	crha <u>rt</u>												
Printed Name	: Harley H	Everhart				Approved by	Environmental S	pecialis	t:					
Title: EHS T	echnician	III				Approval Dat	e:		Expiration I	Date:				

Conditions of Approval:

Phone: 575-513-4922

\* Attach Additional Sheets If Necessary

07-13-2017

Date:

E-mail Address: heverhart@akaenergy.com

Frontier Field Services 65 Mercado St. Durango, CO 81301

### Appendix C NMSE Well Data



### New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)	D suffix indicates the been replaced, D has been replaced O=orphaned, D longer serves a C=the file is						=NW	2=NE : st to lar	3=SW 4=S gest) (1	SE) NAD83 UTM in m	eters)		(In feet)	
	POD											(	in leet)	
POD Number	Sub-	Count		Q		-						Depth	Depth	Water
L 10202	Code basin	LE	y 64						х		Distance	Well	Water	Column
The second se	L	LE		4	4	28	18S	34E	635065	5 3620414* 🌍	2422	70	50	20
L 13563 POD1	L	LE	4	4	4	20	18S	34E	633506	3621920 🌍	2626	200		
L 10236	L	LE		3	3	27	18S	34E	635466	3620420* 🍛	2791			
L 10344 POD2	L	LE		3	3	27	18S	34E	635466	3620420*	2791	142	112	30
L 05851	L	LE			1	34	18S	34E	635681	3619816* 🌑	2837	240	85	155
L 10346	L	LE			3	20	18S	34E	632425	3622187* 🍪	2853	130		
L 10436	L	LE			3	20	18S	34E	632425	3622187* 🌍	2853	120	80	40
L 13634 POD1	L	LE	3	3	3	27	18S	34E	635304	3621051 🌍	2950	182	152	30
										Averag	ge Depth to	Water:	95 f	eet
											Minimum	Depth:	50 f	eet
											Maximum	Depth:	152 f	eet
Record Count: 8														
Basin/County Search:														
Basin: Lea County	C	ounty:	Lea	į.										
UTMNAD83 Radius Sea	arch (in mete	rs):												
Easting (X): 600070														

Easting (X): 632879

Northing (Y): 3619370

Radius: 3000

### \*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



### Water Column/Average Depth to Water New Mexico Office of the State Engineer

(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

No records found.

### Basin/County Search:

Batin: Lea County: Lea

PLSS Search

Section(s): 32 Township: 18S Range: 34E

The Allower and Allower

accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data The data is formished by the NAIOSE ISC and is accepted by the recipient with the expressed understanding that the OSE ISC make no warranties, expressed or implied, concerning the

4/10/17 9:12 AM

WATER COLUMN AVERAGE DEPTH TO WATER

Appendix C