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Site Characterization and Work Plan

Chisholm Energy Operating, LLC
COTTONWOOD 29-32 FED COM
Eddy County, New Mexico
Unit Letter "A", Section 29, Township 26 South, Range 26 East
Latitude 32.001087° North, Longitude 104.307703° West
NMOCD Reference #2RP-4768; 2RP-4986; 2RP-5560

Prepared For:

Chisholm Energy Operating, LLC 801 Cherry Street, Suite 1200 Fort Worth, TX 76102

Prepared By:

Etech Environmental & Safety Solutions, Inc. 3100 Plains Highway Lovington, New Mexico 88260

July 2019

Daniel Dominguez Project Manager



The following Site Characterization and Work Plan serves as a condensed update on field activities undertaken and proposed actions for the afore referenced Site.

BACKGROUND

The release site is located in Unit Letter A (NE ¼ of NE ¼), Section 29, Township 26 South, Range 26 East, approximately 12 miles south east of Whites City, in Eddy County, New Mexico. The property is owned by the Bureau of Land Management.

The release site is located on an active well site and battery; latitude 32.001087 North, longitude 104.307703 West. Area Map, Water Well Map, and Site/Sample Map are included as Figure 1, Figure 2, and Figure 3, respectively. The initial NMOCD Form C-141's indicate three separate releases have occurred at this site. On May 21, 2018, an estimated 195 barrels (bbls) of produced water were released when a lightning strike caused a fire. On July 15, 2018, an estimated 50 bbls of produced water were released from a tank being used as remedial storage. On May 26, 2019, an estimated 198 bbls of produced water were released when a dump valve washed out. These releases impacted approximately 13,841 sq. ft. of well pad as well as 18,648 sq. ft. of adjacent pipeline right-of-way. The initial NMOCD Form C-141's are included as Attachment IV.

NMOCD SITE CLASSIFICATION

A search for water wells was completed utilizing the New Mexico Office of the State Engineer (NMOSE) and the United States Geologic Survey (USGS) websites. There are thirteen wells located in the area surrounding the release site (reference Table 1). Also, no wells (domestic, agriculture or public) and no bodies of surface water exist within a 1,000-foot radius of the release site (reference Figure 2). The NMOSE database indicates average water depth is approximately 45 feet below ground surface (bgs) within a 2,000-meter radius (reference Attachment II).

Utilizing this information, the NMOCD guidelines indicate the Cottonwood release site to have an initial ranking score of twenty. Based on this score, the NMOCD soil remediation levels for vertical delineation on this Site were determined as follows:

- Benzene 10 mg/kg
- Benzene, ethylbenzene, toluene, and xylenes (BTEX) 50 mg/kg
- Total petroleum hydrocarbons (TPH) 100 mg/kg
- Chloride 600 mg/kg

DELINEATION PROGRESS

Etech personnel were on site June 10th, July 1, and July 3, 2019, to begin remediation and delineation activities. Initial surface soil sample points were established within the noticeable impacted area. Twenty-five soil sample points, SP1 – SP25, were established and advanced vertically for purposes of delineation. Discrete soil samples were retrieved at surface level only for locations SP1 – SP10. Discrete soil samples we retrieved at surface level and approximately



one-foot bgs for locations SP11 – SP25. Field screens indicated vertical delineation for chlorides had been achieved at each location except SP15 where refusal was met at ten feet bgs. Laboratory analyses confirmed delineation was achieved for all sample locations except SP15. Laboratory analysis indicates elevated chloride concentrations at SP15 to at least ten feet bgs (reference Figure 3 and Table 2). Laboratory analytical reports are provided as Attachment III.

QA/QC PROCEDURES

Discrete soil samples were delivered to Cardinal Laboratories in Hobbs, New Mexico, for BTEX, TPH, and chloride analysis. EPA Methods 8021B, SW-846 8015M, and 4500 Cl-B were utilized to determine BTEX, TPH, and Chloride concentrations, respectively. Cleaning of the sampling equipment was the responsibility of the environmental technician. Prior to use, and between each sample, the sampling equipment was cleaned and rinsed with distilled water. The laboratory was responsible for proper QA/QC procedures after signing the chain-of-custody. These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

PROPOSED ACTIONS

Etech proposes to excavate the entire release area to varying depths based on laboratory analytical results presented in Table 2. Delineation was achieved for each sample location between one and three feet bgs, apart from SP15 where refusal was met at a hard gypsum layer at ten feet bgs.

The following excavation plan is proposed: the floor of the excavation in the areas characterized by SP2, SP3, and SP8 will be excavated to a depth of approximately one-foot bgs; the areas characterized by SP1, SP4, SP7 will be excavated to a depth of approximately two feet bgs; the areas characterized by SP5, and SP6 will be excavated to a depth of approximately three feet bgs; the area off pad will be excavated to a depth of approximately three feet bgs; the area characterized by SP15 will be excavated to a depth beyond ten feet bgs, until laboratory analytical results indicate BTEX, TPH, and chloride concentrations are below NMOCD closure criteria. Excavation sidewalls will be extended laterally until laboratory analytical results indicate BTEX, TPH, and chloride concentrations are below NMOCD closure criteria.

Upon completion of excavation activities, confirmation soil samples will be collected from the excavation floor and sidewalls. These samples will consist of five-point composites representing no more than 200 square feet. Composite samples will also be collected adjacent to the release area to confirm the lateral extents of the release have been reached. These samples will be sent to an NMOCD approved laboratory for analysis of concentrations of benzene, BTEX, TPH, and chloride.

Upon receipt of laboratory analysis confirming samples were below the regulatory remediation action levels established for the site by the NMOCD, the excavations will be backfilled with imported, clean soil. Caliche will be used to backfill the pad excavations, while topsoil will be used to backfill the excavated area in the pipeline right-of-way. Caliche and topsoil will be free of deleterious material or rocks or large clumps. Backfilling will continue until the excavations



are closed. Upon completion of backfill activities, the entire disturbed area will be contoured to blend with well pad, and off pad areas.

LIMITATIONS

Etech Environmental & Safety Solutions, Inc. has prepared this *Site Characterization and Work Plan* to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Etech Environmental has not conducted an independent examination of the facts contained in referenced materials and statements. Etech Environmental has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Etech Environmental has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Chisholm Energy Operating, LLC. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Etech Environmental & Safety Solutions, Inc. and/or Chisholm Energy Operating, LLC.

Following completion of NMOCD approved Proposed Actions, Etech will provide a detailed Remediation Summary & Closure Report to Chisholm and NMOCD personnel. Chisholm and Etech personnel would welcome an opportunity to briefly discuss the Work Plan at your earliest convenience. However, should you have any questions or concerns please feel free to contact me at (432) 813-1592 or via email at danield@etechenv.com or Mr. Tim Green at (432) 413-9747 or via email at tgreen@chisholmenergy.com. All official communication should be addressed to:

Mr. Tim Green Chisholm Energy Operating, LLC 801 Cherry Street, Suite 1200 Fort Worth, TX 76102

Sincerely,

Etech Environmental & Safety Solutions, Inc.

il Sonj

Daniel Dominguez

Project Manager



cc: Mike Bratcher, NMOCD District 2, Artesia, NM

Tim Green, Chisholm Energy

File

Encl.: Figure 1 – Area Map

Figure 2 – Water Well Map Figure 3 – Site/Sample Map

Table 1 – Well Data

Table 2 – Concentrations of Benzene, BTEX, TPH, & Chloride in Soil

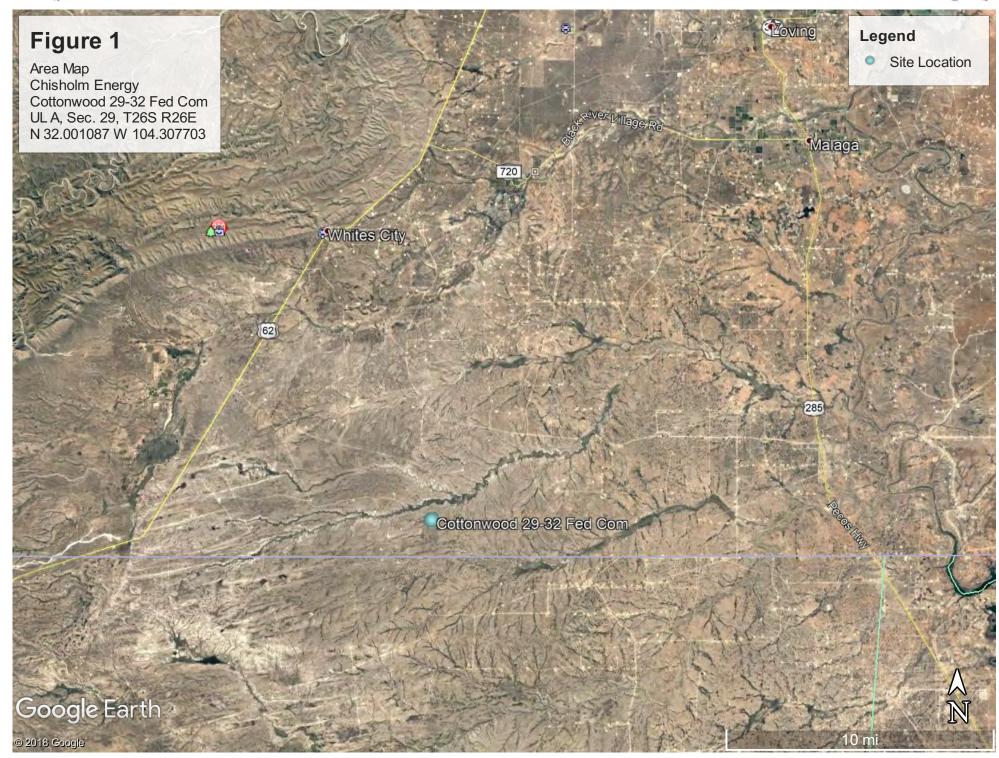
Attachment I – Photographs

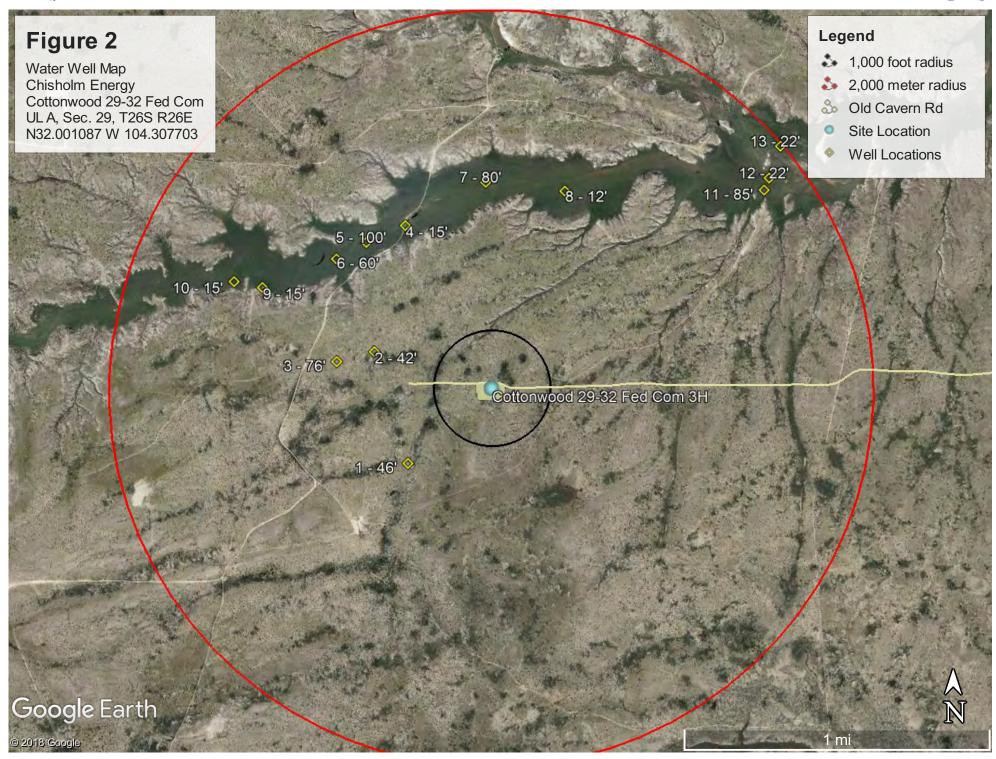
Attachment II – NMOSE Average Depth to Groundwater

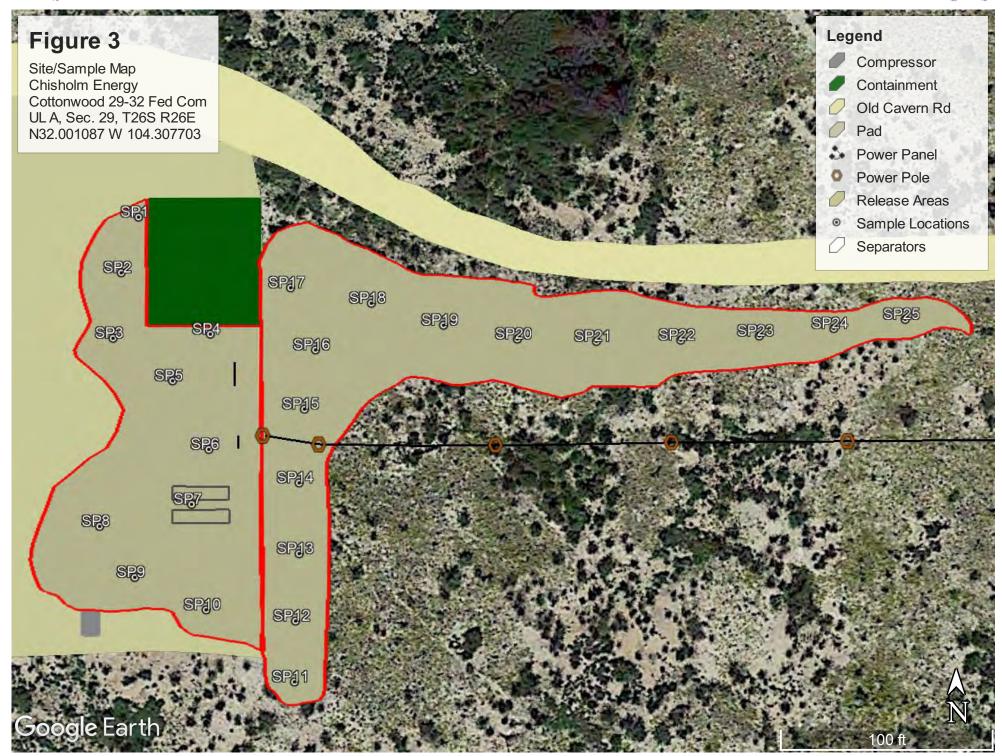
Attachment III – Laboratory Analytical Results

Attachment IV – NMOCD Form C-141

FIGURES







TABLES

TABLE 1
Well Data
Chisholm Energy Operating, LLC
Cottonwood 29-32 Fed Com

Ref.#	Well Number	Use	Diversion ^A	Owner	q64	q16	q4	Sec	Tws	Rng	Easting	Northing	Distance ^B	Date Measured	Surface Elevation ^C	Depth to Water in ft bgs
1	320100104185501			USGS	3	4	1	29	26S	26E	564664	3542487	591	08-Jan-98	3,453	46
2	C 04270 POD3	MON	0	3BEAR ENERGY-OWNER	3	4	3	20	26S	26E	564484	3543072	645	18-Aug-18	3,457	42
3	C 04270 POD1	MON	0	3BEAR ENERGY-OWNER	3	4	3	20	26S	26E	564288	3543019	824	18-Aug-18	3,464	76
4	C 03812 POD1	STK	3	DAVID MALEY	4	4	1	20	26S	26E	564641	3543737	969	16-Jun-15	3,418	15
5	C 04046 POD1	PRO	0	CHISHOLM ENERGY	1	2	3	20	26S	26E	564437	3543647	1,011	19-May-17	3,423	100
6	C 04041 POD1	STK	3	DAVID MALEY	2	1	3	20	26S	26E	564281	3543559	1,061	13-Jun-17	3,427	60
7	C 04048 POD1	PRO	0	EVA LAVERNE MALEY	2	3	2	20	26S	26E	565061	3543969	1,084	23-Apr-17	3,395	80
8	C 04170 POD1	EXP	0	DAVID MALEY	4	4	2	20	26S	26E	565477	3543926	1,106	08-Nov-18	3,378	12
9	C 03810 POD1	STK	3	DAVID MALEY	3	1	3	20	26S	26E	563895	3543406	1,314	17-Jun-15	3,439	15
10	C 03811 POD1	STK	3	DAVID MALEY	4	1	4	19	26S	26E	563746	3543436	1,463	18-Jun-15	3,435	15
11	C 04091 POD1	EXP	0	DAVID MALEY	2	3	2	21	26S	26E	566527	3543940	1,773	19-Jun-17	3,345	85
12	C 04172 POD1	EXP	0	DAVID MALEY	2	3	2	21	26S	26E	566553	3544004	1,833	31-May-18	3,344	22
13	C 04173 POD1	EXP	0	DAVID MALEY	4	1	2	21	26S	26E	566611	3544172	1,983	29-May-18	3,347	22

Data obtained from the New Mexico Office of the State Engineer and USGS Website

MON = Monitoring well

STK = 72-12-1 Livestock watering

PRO = 72-12-1 Prospecting or Development of Natural Resource

EXP = Exploration

quarters are 1=NW, 2=NE, 3=SW, 4=SE; quarters are smallest to biggest

 $^{^{}A}$ = In acre feet per anum B = In meters C = Elevation interpolated from Google Earth based on referenced location

TABLE 2
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL
CHISHOLM ENERGY OPERATING, LLC

Cottonwood 29-32 Fed Com

				FIELD			ETHYL-	TOTAL	TOTAL	GRO	DRO	EXT DRO	TOTAL TPH	
SAMPLE LOCATION	DEPTH (BCS)	SAMPLE DATE	SOIL STATUS	CHLORIDE	BENZENE (mg/kg)	TOLUENE	BENZENE	XYLENES	BTEX	C ₆ -C ₁₀	C ₁₀ -C ₂₈	C ₂₈ -C ₃₆	C ₆ -C ₃₆	CHLORIDE
LOCATION	(BGS)	DATE	SIAIUS	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
	Surface	6/10/2019	In-Situ		<0.050	<0.050	<0.050	1.07	1.07	11.8	338	<10.0	349.8	8,400
SP1	1	7/1/2019	In-Situ	1,172										
	2	7/1/2019	In-Situ	280	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	176
SP2	Surface	6/10/2019	In-Situ		<0.050	<0.050	<0.050	0.33	0.33	<10.0	22.5	<10.0	22.5	12,400
3F Z	1	7/1/2019	In-Situ	320	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	160
SP3	Surface	6/10/2019	In-Situ		<0.050	0.06	<0.050	1.04	1.10	13.4	782	191	986.4	9,000
3F3	1	7/1/2019	In-Situ	364	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	288
	Surface	6/10/2019	In-Situ		<0.050	0.08	<0.050	0.697	0.773	15.1	826	92.4	933.5	11,800
SP4	1	7/1/2019	In-Situ	1,252	1									
	2	7/1/2019	In-Situ	364	<0.050	<0.050	<0.050	0.379	0.379	<10.0	101	14.9	115.9	192
	Surface	6/10/2019	In-Situ		<0.050	0.300	0.300	4.97	5.57	132	2,090	307	2,529	10,600
SP5	1	7/1/2019	In-Situ	>2,428	1	-					-			
3F3	2	7/1/2019	In-Situ	1,728	1	-					-			
	3	7/1/2019	In-Situ	320	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	42.70	<10.0	42.7	272
	Surface	6/10/2019	In-Situ		<0.050	0.327	0.390	5.61	6.33	245	1,390	93	1,728	2,920
SP6	1	7/1/2019	In-Situ	>2,428	1	-					-			
370	2	7/1/2019	In-Situ	2,428	-									
	3	7/1/2019	In-Situ	320	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	160
	Surface	6/10/2019	In-Situ		<0.050	5.69	2.35	38.9	47	1,290	12,100	178	13,568	2,280
SP7	1	7/1/2019	In-Situ	2,260	-									
	2	7/1/2019	In-Situ	504	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	384
SP8	Surface	6/10/2019	In-Situ		<0.050	1.81	1.31	13.6	16.7	644	4,820	440	5,904	1,280
31.0	1	7/1/2019	In-Situ	280	<0.050	2.53	<0.050	21.9	24.5	1,380	2,980	112	4,472	128
SP9	Surface	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	240
SP10	Surface	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	192
	Surface	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	211	29.9	240.9	608
SP 11	1	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	752
	2	7/3/2019	In-Situ	456	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	34.6	24.6	59.2	48

TABLE 2
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL
CHISHOLM ENERGY OPERATING, LLC

Cottonwood 29-32 Fed Com

Name							cottonwood	1 23-32 Feu CC	,,,,						
Page Page			_		CHLORIDE		_	BENZENE	XYLENES	BTEX	C ₆ -C ₁₀	C ₁₀ -C ₂₈	C ₂₈ -C ₃₆	C ₆ -C ₃₆	CHLORIDE (mg/Kg)
Part		Surface	6/10/2019	In-Situ		<0.050	<0.050	<0.050	0.89	0.89	20.20	993	167	1,180.2	49,600
Part	CD4.2	1	6/10/2019	In-Situ		<0.050	4.52	4.70	96.9	106	4,750	15,100	1,130	20,980	4,800
Surface 6/10/2019 In-Situ -	SP12	2	7/3/2019	In-Situ	1,172										
1 6/10/2019 In-Situ		3	7/3/2019	In-Situ	556	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	34.7	<10.0	34.7	320
SP13		Surface	6/10/2019	In-Situ		<0.050	0.109	0.161	2.61	2.88	98.4	4,960	971	6,029.4	11,400
2 7/3/2019 In-Situ 660	CD12	1	6/10/2019	In-Situ		<0.050	2.05	<0.050	42.0	44.1	1,520	6,220	759	8,499	7,760
Surface 6/10/2019 In-Situ <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050	3713	2	7/3/2019	In-Situ	660										
1 6/10/2019 In-Situ <0.050 <0.050 <0.050 <0.050 <0.300 <0.00 <1.00 <1.01 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00 <1.00		3	7/3/2019	In-Situ	556	<0.050	0.769	<0.050	9.32	10.1	1,010	6,860	887	8,757	272
SP14 2 7/3/2019 In-Situ 896		Surface	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	242	<10.0	242	17,000
Part	CD1.4	1	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	261	<10.0	261	2,240
Surface 6/10/2019 In-Situ - <0.050 <0.050 <0.050 <0.150 <0.300 <10.0 475 30.1 505.1 27,600 1 6/10/2019 In-Situ - <0.050	3P14	2	7/3/2019	In-Situ	896										
1 6/10/2019 In-Situ		3	7/3/2019	In-Situ	408	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	18.6	<10.0	18.6	288
2 7/3/2019 In-Situ >2,428		Surface	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	475	30.1	505.1	27,600
SP15 3 7/3/2019 In-Situ >2,428		1	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	14,800
SP15		2	7/3/2019	In-Situ	>2,428										
4 7/3/2019 In-Situ >2,428	CD1 F	3	7/3/2019	In-Situ	>2,428										
8 7/16/2019 In-Situ >2,584	2512	4	7/3/2019	In-Situ	>2,428										
10 7/16/2019 In-Situ 2,504		5	7/3/2019	In-Situ	5,316	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	6,960
SP16 Surface 6/10/2019 In-Situ <0.050 <0.050 <0.050 <0.300 16.5 3,110 645 3,771.5 8,400 SP16 1 6/10/2019 In-Situ <0.050		8	7/16/2019	In-Situ	>2,584										
SP16 1 6/10/2019 In-Situ <0.050 <0.050 <0.050 <0.150 <0.300 <10.0 <10.0 <30.0 432 2 7/3/2019 In-Situ 320 <0.050		10	7/16/2019	In-Situ	2,504		-					-			
SP17 In-Situ 320 <0.050 <0.050 <0.050 <0.150 <0.300 <10.0 <10.0 <30.0 160 SP17 Surface 6/10/2019 In-Situ <0.050		Surface	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	16.5	3,110	645	3,771.5	8,400
SP17 Surface 6/10/2019 In-Situ <0.050 <0.050 <0.050 <0.150 <0.300 <10.0 <10.0 <30.0 15,200 SP17 1 6/10/2019 In-Situ <0.050	SP16	1	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	432
SP17 1 6/10/2019 In-Situ <0.050 <0.050 <0.150 <0.300 <10.0 <10.0 <30.0 3,760 2 7/3/2019 In-Situ 164 <0.050		2	7/3/2019	In-Situ	320	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	160
2 7/3/2019 In-Situ 164 <0.050 <0.050 <0.050 <0.150 <0.300 <10.0 14.9 31.3 46.2 160 Surface 6/10/2019 In-Situ <0.050 <0.050 <0.050 <0.050 <0.150 <0.300 <10.0 <10.0 <10.0 <10.0 <30.0 3,120 SP18 1 6/10/2019 In-Situ <0.050 <0.050 <0.050 <0.050 <0.150 <0.300 <10.0 <10.0 <10.0 <10.0 <30.0 1,840		Surface	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	15,200
Surface 6/10/2019 In-Situ <0.050 <0.050 <0.050 <0.150 <0.300 <10.0 <10.0 <10.0 <30.0 3,120 <1.0 SP18 1 6/10/2019 In-Situ <0.050 <0.050 <0.050 <0.050 <0.150 <0.300 <10.0 <10.0 <10.0 <10.0 <30.0 1,840	SP17	1	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	3,760
SP18 1 6/10/2019 In-Situ <0.050 <0.050 <0.050 <0.150 <0.300 <10.0 <10.0 <10.0 <30.0 1,840		2	7/3/2019	In-Situ	164	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	14.9	31.3	46.2	160
		Surface	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	3,120
2 7/3/2019 In-Situ 504 <0.050 <0.050 <0.050 <0.150 <0.300 <10.0 <10.0 <10.0 <30.0 336	SP18	1	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	1,840
		2	7/3/2019	In-Situ	504	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	336

TABLE 2
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL
CHISHOLM ENERGY OPERATING, LLC

Cottonwood 29-32 Fed Com

SAMPLE LOCATION	DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	FIELD CHLORIDE (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₀ (mg/Kg)	DRO C ₁₀ -C ₂₈ (mg/Kg)	EXT DRO $C_{28}\text{-}C_{36}$ (mg/Kg)	TOTAL TPH $C_6\text{-}C_{36}$ (mg/Kg)	CHLORIDE (mg/Kg)
	Surface	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	288
SP19	1	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	112
3719	2	7/3/2019	In-Situ	896										
	3	7/3/2019	In-Situ	136	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	112
	Surface	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	10.8	564	41.1	615.9	384
SP20	1	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	9,400
3P20	2	7/3/2019	In-Situ	832										
	3	7/3/2019	In-Situ	240	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	112
	Surface	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	33.5	611	<10.0	644.5	1,150
SP21	1	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	4,000
	2	7/3/2019	In-Situ	556	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	224
	Surface	6/10/2019	In-Situ		<0.050	<0.050	<0.050	0.272	<0.300	<10.0	98.8	<10.0	98.8	11,800
SP22	1	6/10/2019	In-Situ		<0.050	<0.050	<0.050	0.233	<0.300	10.4	54.3	<10.0	64.7	9,400
	2	7/3/2019	In-Situ	364	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	192
	Surface	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	182	<10.0	182	2,720
SP23	1	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	38.7	<10.0	38.7	3,200
	2	7/3/2019	In-Situ	164	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	48
	Surface	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	43.9	<10.0	43.9	512
SP24	1	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	2,720
	2	7/3/2019	In-Situ	136	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	32
	Surface	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	1,070
SP25	1	6/10/2019	In-Situ		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	96
	2	7/3/2019	In-Situ	364	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<30.0	112
NMOCD Re	gulatory St	andard			10				50				100	600

-- = Not Analyzed

Bold = in excess of NMOCD Regulatory Standard

ATTACHMENTS

ATTACHMENT I Photographs

Project No: 10034

Photograph Log

Photo No:

1.

Direction Taken:

East

Date Taken:

5/26/19

Description:

View across release area to the east



Photo No:

2.

Direction Taken:

West

Date Taken:

5/26/19

Description:

View across release area to

the west



Photograph Log

Project Name: Cottonwood 29-32 Fed Com

Project No: 10034

Photo No:

3.

Direction Taken:

East

Date Taken:

5/26/19

Description:

Release area on well pad between to separators and off pad to the east

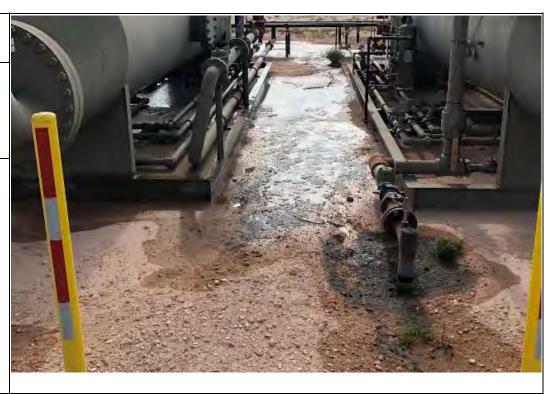


Photo No:

4.

Direction Taken:

North

Date Taken:

5/26/19

Description:

Release area under process lines flowing off pad to the east



Project No: 10034

Photograph Log

Photo No:

5.

Direction Taken:

West

Date Taken:

6/17/19

Description:

Western view across release area off pad along lease

road



Photo No:

6.

Direction Taken:

South

Date Taken: 6/17/19

Description:

Southern view across release area off pad



Project No: 10034

Photograph Log

Photo No:

7.

Direction Taken:

South

Date Taken: 6/17/19

Description:

Southern view across release area



Photo No:

8.

Direction Taken:

South

Date Taken: 6/17/19

Description:

Southern view across release area



Project No: 10034

Photograph Log

Photo No:

9.

Direction Taken:

Southeast

Date Taken:

6/17/19

Description:

Southeastern view across release area



Photo No: **10.**

Direction Taken:

South

Date Taken: 6/17/19

Description:

Southern view across release area



Project No: 10034

Photograph Log

Photo No: 11.

Direction Taken:

West

Date Taken:

7/16/19

Description:

Attempted delineation at

SP15



Photo No: 12.

Direction Taken:

North

Date Taken: 7/16/19

Description:

Attempted delineation at SP15 with refusal at 10 feet bgs at hard gypsum layer



ATTACHMENT II NMOSE Average Depth to Groundwater



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.) (R=POD has been replaced, O=orphaned, C=the file is

closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

	POD Sub-		Q	Q Q							Depth	Depth	Water
POD Number	Code basin	County	64	16 4	Sec	Tws	Rng	Х	Υ	Distance	-	-	Column
C 04270 POD3	CUB	ED	3	4 3	20	26S	26E	564484	3543072 🌍	645	50	42	8
C 04270 POD4	CUB	ED	3	4 3	20	26S	26E	564327	3542970 🌍	779	75		
C 04270 POD1	CUB	ED	3	4 3	20	26S	26E	564288	3543019 🌑	824	90	76	14
C 03812 POD1	С	ED	4	4 1	20	26S	26E	564641	3543737 🌑	969	96	15	81
C 04046 POD1	CUB	ED	1	2 3	20	26S	26E	564437	3543647 🌑	1011	140	100	40
C 04041 POD1	С	ED	2	1 3	20	26S	26E	564281	3543559	1061	100	60	40
C 01351 X	CUB	ED	4	4 1	20	26S	26E	564581	3543822*	1071	25		
C 04048 POD1	CUB	ED	2	3 2	20	26S	26E	565061	3543969 🌑	1084	140	80	60
C 04170 POD1	CUB	ED				26S		565478	3543926	1106	136	12	124
C 01351 X-2	CUB	ED	3	1 3	20	26S	26E	563978	3543413*	1241	25		
C 03810 POD1	С	ED				26S		563896	3543406	1314	100	15	85
<u>C 01351</u>	CUB	ED				26S		563772	3543411*	1429	25		
C 03811 POD1	С	ED				26S		563746	3543436	1463	46	15	31
C 04171 POD1	CUB	ED				26S		566393	3543991	1700	153		
C 04091 POD1	CUB	ED				26S		566528	3543940	1773	140		55
C 04172 POD1	CUB	ED	2			26S		566553	3544004	1833	116	22	94
<u>C 02791</u>	CUB	ED		4 4	17	26S	26E	565288	3544739*	1862	100		
C 04173 POD1	CUB	ED	4	1 2	21	26S	26E	566612	3544172 🌍	1983	117	22	95

Average Depth to Water:

45 feet

Minimum Depth:

12 feet

Maximum Depth:

100 feet

Record Count: 18

UTMNAD83 Radius Search (in meters):

Easting (X): 565101.83 **Northing (Y):** 3542885.48 **Radius:** 2000

*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, or suitability for any particular purpose of the data.

6/12/19 7:37 AM

Page 1 of 1

WATER COLUMN/ AVERAGE DEPTH TO WATER



USGS Home Contact USGS Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category:	Geographic Area:		
Groundwater	✓ New Mexico	~	GO

Click to hideNews Bulletins

- <u>Introducing The Next Generation of USGS Water Data for the Nation</u>
- Full News

Groundwater levels for New Mexico

Click to hide state-specific text

Site Selection Results -- 1 sites found

lat_long_bounding_box

Position	Latitude	Longitude
Corner 1	32.038261	104.334814
Corner 2	32.002183	104.289468

Coordinates are entered as Decimal Degrees. DMS values are converted to Decimal degrees using NAD83 as the datum. Make your bounding box bigger if you are using NAD27 Datum for your DMS values

Minimum number of 1 levels =

Save file of selected sites to local disk for future upload

Data for individual sites can be obtained by selecting the site number below

			Period of F	Record	
Agency	Site Number	Site Name	Begin Date	End Date	Levels
USGS	320100104185501	26S.26E.29.143432	1983-02- 17	1998-01- 08	5

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Accessibility Plug-Ins FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater levels -- 1 sites found

URL: https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?

Page Contact Information: New Mexico Water Data Maintainer

Page Last Modified: 2019-06-12 09:51:00 EDT

0.52 0.48 nadww02



ATTACHMENT III Laboratory Analytical Results



June 20, 2019

DANIEL DOMINGUEZ

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: COTTONWOOD 29-32 FED

Enclosed are the results of analyses for samples received by the laboratory on 06/12/19 14:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab 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.

Celey D. Keens

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

Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 1 @ SURFACE (H902042-01)

BTEX 8021B	mg/	'kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/18/2019	ND	2.14	107	2.00	2.43	
Toluene*	<0.050	0.050	06/18/2019	ND	2.13	106	2.00	1.87	
Ethylbenzene*	<0.050	0.050	06/18/2019	ND	2.02	101	2.00	1.39	
Total Xylenes*	1.07	0.150	06/18/2019	ND	6.11	102	6.00	2.16	
Total BTEX	1.07	0.300	06/18/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 5	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8400	16.0	06/14/2019	ND	400	100	400	0.00	
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*	11.8	10.0	06/13/2019	ND	236	118	200	4.47	
DRO >C10-C28*	338	10.0	06/13/2019	ND	215	108	200	7.27	
EXT DRO >C28-C36	<10.0	10.0	06/13/2019	ND					
Surrogate: 1-Chlorooctane	88.1	% 41-142	?						
Surrogate: 1-Chlorooctadecane	98.6	% 37.6-14	7						

Cardinal Laboratories *=Accredited Analyte

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 2 @ SURFACE (H902042-02)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/18/2019	ND	2.14	107	2.00	2.43	
Toluene*	<0.050	0.050	06/18/2019	ND	2.13	106	2.00	1.87	
Ethylbenzene*	<0.050	0.050	06/18/2019	ND	2.02	101	2.00	1.39	
Total Xylenes*	0.331	0.150	06/18/2019	ND	6.11	102	6.00	2.16	
Total BTEX	0.331	0.300	06/18/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12400	16.0	06/14/2019	ND	400	100	400	0.00	
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	06/13/2019	ND	236	118	200	4.47	
DRO >C10-C28*	22.5	10.0	06/13/2019	ND	215	108	200	7.27	
EXT DRO >C28-C36	<10.0	10.0	06/13/2019	ND					
Surrogate: 1-Chlorooctane	99.8	% 41-142	?						
Surrogate: 1-Chlorooctadecane	108	% 37.6-14	7						

*=Accredited Analyte Cardinal Laboratories

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Celecy D. Kreene

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 3 @ SURFACE (H902042-03)

BTEX 8021B	mg	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/18/2019	ND	2.14	107	2.00	2.43	
Toluene*	0.055	0.050	06/18/2019	ND	2.13	106	2.00	1.87	
Ethylbenzene*	<0.050	0.050	06/18/2019	ND	2.02	101	2.00	1.39	
Total Xylenes*	1.04	0.150	06/18/2019	ND	6.11	102	6.00	2.16	
Total BTEX	1.10	0.300	06/18/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	100	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9000	16.0	06/14/2019	ND	400	100	400	0.00	
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*	13.4	10.0	06/13/2019	ND	236	118	200	4.47	
DRO >C10-C28*	782	10.0	06/13/2019	ND	215	108	200	7.27	
EXT DRO >C28-C36	191	10.0	06/13/2019	ND					
Surrogate: 1-Chlorooctane	95.5	% 41-142	?						
Surrogate: 1-Chlorooctadecane	125	% 37.6-14	7						

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Celecy D. Kreene

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 4 @ SURFACE (H902042-04)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/18/2019	ND	2.14	107	2.00	2.43	
Toluene*	0.076	0.050	06/18/2019	ND	2.13	106	2.00	1.87	
Ethylbenzene*	<0.050	0.050	06/18/2019	ND	2.02	101	2.00	1.39	
Total Xylenes*	0.697	0.150	06/18/2019	ND	6.11	102	6.00	2.16	
Total BTEX	0.773	0.300	06/18/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11800	16.0	06/14/2019	ND	400	100	400	0.00	
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*	15.1	10.0	06/13/2019	ND	236	118	200	4.47	
DRO >C10-C28*	826	10.0	06/13/2019	ND	215	108	200	7.27	
EXT DRO >C28-C36	92.4	10.0	06/13/2019	ND					
Surrogate: 1-Chlorooctane	92.8	% 41-142	?						
Surrogate: 1-Chlorooctadecane	113	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 5 @ SURFACE (H902042-05)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/18/2019	ND	2.14	107	2.00	2.43	
Toluene*	0.300	0.050	06/18/2019	ND	2.13	106	2.00	1.87	
Ethylbenzene*	0.300	0.050	06/18/2019	ND	2.02	101	2.00	1.39	
Total Xylenes*	4.97	0.150	06/18/2019	ND	6.11	102	6.00	2.16	
Total BTEX	5.57	0.300	06/18/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	119	% 73.3-12	9						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10600	16.0	06/14/2019	ND	400	100	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	132	10.0	06/13/2019	ND	236	118	200	4.47	
DRO >C10-C28*	2090	10.0	06/13/2019	ND	215	108	200	7.27	
EXT DRO >C28-C36	307	10.0	06/13/2019	ND					
Surrogate: 1-Chlorooctane	129	% 41-142							
Surrogate: 1-Chlorooctadecane	152	% 37.6-14	7						

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 6 @ SURFACE (H902042-06)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.100	0.100	06/18/2019	ND	2.14	107	2.00	2.43	
Toluene*	0.327	0.100	06/18/2019	ND	2.13	106	2.00	1.87	
Ethylbenzene*	0.390	0.100	06/18/2019	ND	2.02	101	2.00	1.39	
Total Xylenes*	5.61	0.300	06/18/2019	ND	6.11	102	6.00	2.16	
Total BTEX	6.33	0.600	06/18/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	113	% 73.3-12	9						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2920	16.0	06/14/2019	ND	400	100	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	245	10.0	06/13/2019	ND	236	118	200	4.47	
DRO >C10-C28*	1390	10.0	06/13/2019	ND	215	108	200	7.27	
EXT DRO >C28-C36	93.0	10.0	06/13/2019	ND					
Surrogate: 1-Chlorooctane	160	% 41-142							
Surrogate: 1-Chlorooctadecane	130	% 37.6-14	7						

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 7 @ SURFACE (H902042-07)

BTEX 8021B Analyte	mg/kg		Analyzed By: ms						
	Result	Reporting Limit	Analyzed	Method Blank	BS % Re	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	06/19/2019	ND	2.14	107	2.00	2.43	
Toluene*	5.69	0.500	06/19/2019	ND	2.13	106	2.00	1.87	
Ethylbenzene*	2.35	0.500	06/19/2019	ND	2.02	101	2.00	1.39	
Total Xylenes*	38.9	1.50	06/19/2019	ND	6.11	102	6.00	2.16	
Total BTEX	47.0	3.00	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	108	% 73.3-12	9						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2280	16.0	06/14/2019	ND	400	100	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1290	100	06/14/2019	ND	236	118	200	4.47	
DRO >C10-C28*	12100	100	06/14/2019	ND	215	108	200	7.27	
EXT DRO >C28-C36	178	100	06/14/2019	ND					
Surrogate: 1-Chlorooctane	468	% 41-142	?						
Surrogate: 1-Chlorooctadecane	412	% 37.6-14	7						

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 8 @ SURFACE (H902042-08)

BTEX 8021B	mg	/kg	Analyze	d By: ms					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	06/19/2019	ND	2.14	107	2.00	2.43	
Toluene*	1.81	0.200	06/19/2019	ND	2.13	106	2.00	1.87	
Ethylbenzene*	1.31	0.200	06/19/2019	ND	2.02	101	2.00	1.39	
Total Xylenes*	13.6	0.600	06/19/2019	ND	6.11	102	6.00	2.16	
Total BTEX	16.7	1.20	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	131	% 73.3-12	9						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1280	16.0	06/17/2019	ND	400	100	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	644	10.0	06/13/2019	ND	236	118	200	4.47	
DRO >C10-C28*	4820	10.0	06/13/2019	ND	215	108	200	7.27	
EXT DRO >C28-C36	440	10.0	06/13/2019	ND					
Surrogate: 1-Chlorooctane	312	% 41-142	?						
Surrogate: 1-Chlorooctadecane	215	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 9 @ SURFACE (H902042-09)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.14	107	2.00	2.43	
Toluene*	<0.050	0.050	06/19/2019	ND	2.13	106	2.00	1.87	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	2.02	101	2.00	1.39	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	6.11	102	6.00	2.16	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	06/17/2019	ND	400	100	400	0.00	
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	06/13/2019	ND	236	118	200	4.47	
DRO >C10-C28*	<10.0	10.0	06/13/2019	ND	215	108	200	7.27	
EXT DRO >C28-C36	<10.0	10.0	06/13/2019	ND					
Surrogate: 1-Chlorooctane	99.0	% 41-142							
Surrogate: 1-Chlorooctadecane	101 9	% 37.6-14	7						

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Celecy D. Kreene



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 10 @ SURFACE (H902042-10)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.14	107	2.00	2.43	
Toluene*	<0.050	0.050	06/19/2019	ND	2.13	106	2.00	1.87	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	2.02	101	2.00	1.39	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	6.11	102	6.00	2.16	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	06/17/2019	ND	400	100	400	0.00	
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	06/13/2019	ND	236	118	200	4.47	
DRO >C10-C28*	<10.0	10.0	06/13/2019	ND	215	108	200	7.27	
EXT DRO >C28-C36	<10.0	10.0	06/13/2019	ND					
Surrogate: 1-Chlorooctane	101	% 41-142)						
Surrogate: 1-Chlorooctadecane	97.3	% 37.6-14	7						

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Celey D. Keine



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 11 @ SURFACE (H902042-11)

BTEX 8021B	mg/	'kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.14	107	2.00	2.43	
Toluene*	<0.050	0.050	06/19/2019	ND	2.13	106	2.00	1.87	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	2.02	101	2.00	1.39	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	6.11	102	6.00	2.16	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	608	16.0	06/17/2019	ND	400	100	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/13/2019	ND	236	118	200	4.47	
DRO >C10-C28*	211	10.0	06/13/2019	ND	215	108	200	7.27	
EXT DRO >C28-C36	29.9	10.0	06/13/2019	ND					
Surrogate: 1-Chlorooctane	103 9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	154	% 37.6-14	7						

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Celecy D. Kreene



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 11 @ 1' (H902042-12)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.14	107	2.00	2.43	
Toluene*	<0.050	0.050	06/19/2019	ND	2.13	106	2.00	1.87	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	2.02	101	2.00	1.39	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	6.11	102	6.00	2.16	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	752	16.0	06/17/2019	ND	400	100	400	0.00	
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	06/13/2019	ND	236	118	200	4.47	
DRO >C10-C28*	<10.0	10.0	06/13/2019	ND	215	108	200	7.27	
EXT DRO >C28-C36	<10.0	10.0	06/13/2019	ND					
Surrogate: 1-Chlorooctane	95.2	% 41-142	?						
Surrogate: 1-Chlorooctadecane	101	% 37.6-14	7						

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Celey D. Keene



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 12 @ SURFACE (H902042-13)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.14	107	2.00	2.43	
Toluene*	<0.050	0.050	06/19/2019	ND	2.13	106	2.00	1.87	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	2.02	101	2.00	1.39	
Total Xylenes*	0.887	0.150	06/19/2019	ND	6.11	102	6.00	2.16	
Total BTEX	0.887	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	49600	16.0	06/17/2019	ND	400	100	400	0.00	
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*	20.2	10.0	06/13/2019	ND	236	118	200	4.47	
DRO >C10-C28*	993	10.0	06/13/2019	ND	215	108	200	7.27	
EXT DRO >C28-C36	167	10.0	06/13/2019	ND					
Surrogate: 1-Chlorooctane	92.4	% 41-142	?						
Surrogate: 1-Chlorooctadecane	115 9	% 37.6-14	7						

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 12 @ 1' (H902042-14)

BTEX 8021B	mg,	'kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<2.00	2.00	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	4.52	2.00	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	4.70	2.00	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	96.9	6.00	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	106	12.0	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	109	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4800	16.0	06/17/2019	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	4750	100	06/14/2019	ND	236	118	200	4.47	
DRO >C10-C28*	15100	100	06/14/2019	ND	215	108	200	7.27	
EXT DRO >C28-C36	1130	100	06/14/2019	ND					
Surrogate: 1-Chlorooctane	790	% 41-142	?						
Surrogate: 1-Chlorooctadecane	461	% 37.6-14	7						

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Celecy D. Kreene



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 13 @ SURFACE (H902042-15)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	0.109	0.050	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	0.161	0.050	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	2.61	0.150	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	2.88	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	115 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11400	16.0	06/17/2019	ND	400	100	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	98.4	10.0	06/13/2019	ND	236	118	200	4.47	
DRO >C10-C28*	4960	10.0	06/13/2019	ND	215	108	200	7.27	
EXT DRO >C28-C36	971	10.0	06/13/2019	ND					
Surrogate: 1-Chlorooctane	134 9	% 41-142							
Surrogate: 1-Chlorooctadecane	259	% 37.6-14	7						

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Celey D. Keine



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 13 @ 1' (H902042-16)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	2.05	0.500	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	<0.500	0.500	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	42.0	1.50	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	44.1	3.00	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	117	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7760	16.0	06/17/2019	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1520	10.0	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	6220	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	759	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	361	% 41-142	?						
Surrogate: 1-Chlorooctadecane	261	% 37.6-14	7						

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Celecy D. Kreene



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 14 @ SURFACE (H902042-17)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	<0.050	0.050	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	108	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	17000	16.0	06/17/2019	ND	400	100	400	0.00	
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	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	242	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	96.7	% 41-142							
Surrogate: 1-Chlorooctadecane	106	% 37.6-14	7						

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 14 @ 1' (H902042-18)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	<0.050	0.050	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	109	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2240	16.0	06/17/2019	ND	400	100	400	0.00	
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	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	261	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	95.2	% 41-142	,						
Surrogate: 1-Chlorooctadecane	104 9	% 37.6-14	7						

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 15 @ SURFACE (H902042-19)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	<0.050	0.050	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	110 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	27600	16.0	06/17/2019	ND	400	100	400	0.00	
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	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	475	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	30.1	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	95.7	% 41-142							
Surrogate: 1-Chlorooctadecane	107	% 37.6-14	7						

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Celecy D. Kreene

Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 15 @ 1' (H902042-20)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	<0.050	0.050	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	109	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	14800	16.0	06/17/2019	ND	400	100	400	0.00	
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	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	<10.0	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	86.7	% 41-142	?						
Surrogate: 1-Chlorooctadecane	89.2	% 37.6-14	7						

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Celey D. Keine



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 16 @ SURFACE (H902042-21)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	<0.050	0.050	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	115 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8400	16.0	06/17/2019	ND	400	100	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	16.5	10.0	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	3110	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	645	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	101 9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	189	% 37.6-14	7						

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Celecy D. Kreene



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 16 @ 1' (H902042-22)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	<0.050	0.050	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	110 9	% 73.3-12	9						
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	06/17/2019	ND	400	100	400	0.00	
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	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	<10.0	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	94.5	% 41-142)						
Surrogate: 1-Chlorooctadecane	97.4	% 37.6-14	7						

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Celey D. Keene



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 17 @ SURFACE (H902042-23)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	<0.050	0.050	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	113 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	15200	16.0	06/17/2019	ND	400	100	400	0.00	
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	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	<10.0	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	100 5	% 41-142	?						
Surrogate: 1-Chlorooctadecane	103 9	% 37.6-14	7						

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Celecy D. Kreene



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 17 @ 1' (H902042-24)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	<0.050	0.050	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	112 5	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3760	16.0	06/17/2019	ND	400	100	400	0.00	
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	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	<10.0	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	97.4	% 41-142	?						
Surrogate: 1-Chlorooctadecane	100	% 37.6-14	7						

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Celecy D. Kreene



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 18 @ SURFACE (H902042-25)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	<0.050	0.050	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	112 5	% 73.3-12	9						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3120	16.0	06/17/2019	ND	400	100	400	0.00	
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	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	<10.0	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	91.3	% 41-142	?						
Surrogate: 1-Chlorooctadecane	95.1	% 37.6-14	7						

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Celecy D. Kreene

Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 18 @ 1' (H902042-26)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	<0.050	0.050	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	112 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1840	16.0	06/17/2019	ND	400	100	400	0.00	
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	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	<10.0	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	84.1	% 41-142)						
Surrogate: 1-Chlorooctadecane	81.8	% 37.6-14	7						

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Celey D. Keine



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 19 @ SURFACE (H902042-27)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	<0.050	0.050	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	112 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	06/17/2019	ND	400	100	400	0.00	
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	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	<10.0	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	91.7	% 41-142	?						
Surrogate: 1-Chlorooctadecane	92.7	% 37.6-14	7						

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Celecy D. Kreene



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 19 @ 1' (H902042-28)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	<0.050	0.050	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	111 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/17/2019	ND	432	108	400	3.77	
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	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	<10.0	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	89.4	% 41-142	?						
Surrogate: 1-Chlorooctadecane	86.7	% 37.6-14	7						

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Celey D. Keene



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 20 @ SURFACE (H902042-29)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	<0.050	0.050	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	112 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	06/17/2019	ND	432	108	400	3.77	
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*	10.8	10.0	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	564	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	41.1	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	90.1	% 41-142	?						
Surrogate: 1-Chlorooctadecane	100 9	% 37.6-14	7						

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Celecy D. Kreene

Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 20 @ 1' (H902042-30)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	<0.050	0.050	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	110	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9400	16.0	06/17/2019	ND	432	108	400	3.77	
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	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	<10.0	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	84.1	% 41-142	,						
Surrogate: 1-Chlorooctadecane	82.0	% 37.6-14	7						

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Celecy D. Kreene



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 21 @ SURFACE (H902042-31)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	<0.050	0.050	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	115 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1150	16.0	06/17/2019	ND	432	108	400	3.77	
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*	33.5	10.0	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	611	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	102 5	% 41-142	?						
Surrogate: 1-Chlorooctadecane	101 9	% 37.6-14	7						

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 21 @ 1' (H902042-32)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	<0.050	0.050	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	<0.050	0.050	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	<0.150	0.150	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	110	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4000	16.0	06/17/2019	ND	432	108	400	3.77	
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	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	<10.0	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	85.9	% 41-142	,						
Surrogate: 1-Chlorooctadecane	85.0	% 37.6-14	7						

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Celey D. Keene



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 22 @ SURFACE (H902042-33)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2019	ND	2.13	107	2.00	0.957	
Toluene*	< 0.050	0.050	06/19/2019	ND	2.12	106	2.00	0.763	
Ethylbenzene*	< 0.050	0.050	06/19/2019	ND	1.98	98.8	2.00	1.94	
Total Xylenes*	0.272	0.150	06/19/2019	ND	5.95	99.1	6.00	1.78	
Total BTEX	<0.300	0.300	06/19/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	111 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11800	16.0	06/17/2019	ND	432	108	400	3.77	
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	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	98.8	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	91.2	% 41-142	?						
Surrogate: 1-Chlorooctadecane	97.8	% 37.6-14	7						

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Celecy D. Kreene

Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 22 @ 1' (H902042-34)

BTEX 8021B	mg/	'kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2019	ND	2.21	111	2.00	1.65	
Toluene*	<0.050	0.050	06/15/2019	ND	2.24	112	2.00	0.599	
Ethylbenzene*	<0.050	0.050	06/15/2019	ND	2.08	104	2.00	1.59	
Total Xylenes*	0.233	0.150	06/15/2019	ND	6.26	104	6.00	1.43	
Total BTEX	<0.300	0.300	06/15/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	112 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9400	16.0	06/17/2019	ND	432	108	400	3.77	
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*	10.4	10.0	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	54.3	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	99.4	% 41-142	?						
Surrogate: 1-Chlorooctadecane	99.2	% 37.6-14	7						

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 23 @ SURFACE (H902042-35)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2019	ND	2.21	111	2.00	1.65	
Toluene*	<0.050	0.050	06/15/2019	ND	2.24	112	2.00	0.599	
Ethylbenzene*	<0.050	0.050	06/15/2019	ND	2.08	104	2.00	1.59	
Total Xylenes*	<0.150	0.150	06/15/2019	ND	6.26	104	6.00	1.43	
Total BTEX	<0.300	0.300	06/15/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 5	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2720	16.0	06/17/2019	ND	432	108	400	3.77	
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	06/14/2019	ND	246	123	200	6.44	
DRO >C10-C28*	182	10.0	06/14/2019	ND	221	110	200	16.0	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	93.9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	97.9	% 37.6-14	7						

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 23 @ 1' (H902042-36)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2019	ND	2.21	111	2.00	1.65	
Toluene*	<0.050	0.050	06/15/2019	ND	2.24	112	2.00	0.599	
Ethylbenzene*	<0.050	0.050	06/15/2019	ND	2.08	104	2.00	1.59	
Total Xylenes*	<0.150	0.150	06/15/2019	ND	6.26	104	6.00	1.43	
Total BTEX	<0.300	0.300	06/15/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3200	16.0	06/17/2019	ND	432	108	400	3.77	
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	06/14/2019	ND	185	92.3	200	3.85	
DRO >C10-C28*	38.7	10.0	06/14/2019	ND	183	91.4	200	6.10	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	87.7	% 41-142	?						
Surrogate: 1-Chlorooctadecane	89.3	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 24 @ SURFACE (H902042-37)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2019	ND	2.21	111	2.00	1.65	
Toluene*	<0.050	0.050	06/15/2019	ND	2.24	112	2.00	0.599	
Ethylbenzene*	<0.050	0.050	06/15/2019	ND	2.08	104	2.00	1.59	
Total Xylenes*	<0.150	0.150	06/15/2019	ND	6.26	104	6.00	1.43	
Total BTEX	<0.300	0.300	06/15/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 5	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	06/17/2019	ND	432	108	400	3.77	
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	06/14/2019	ND	185	92.3	200	3.85	
DRO >C10-C28*	43.9	10.0	06/14/2019	ND	183	91.4	200	6.10	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	85.7	% 41-142)						
Surrogate: 1-Chlorooctadecane	87.6	% 37.6-14	7						

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Celecy D. Kreene



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 24 @ 1' (H902042-38)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2019	ND	2.21	111	2.00	1.65	
Toluene*	<0.050	0.050	06/15/2019	ND	2.24	112	2.00	0.599	
Ethylbenzene*	<0.050	0.050	06/15/2019	ND	2.08	104	2.00	1.59	
Total Xylenes*	<0.150	0.150	06/15/2019	ND	6.26	104	6.00	1.43	
Total BTEX	<0.300	0.300	06/15/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2720	16.0	06/17/2019	ND	432	108	400	3.77	
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	06/14/2019	ND	185	92.3	200	3.85	
DRO >C10-C28*	<10.0	10.0	06/14/2019	ND	183	91.4	200	6.10	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	87.7	% 41-142)						
Surrogate: 1-Chlorooctadecane	89.3	% 37.6-14	7						

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Celey D. Keene



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 25 @ SURFACE (H902042-39)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2019	ND	2.21	111	2.00	1.65	
Toluene*	<0.050	0.050	06/15/2019	ND	2.24	112	2.00	0.599	
Ethylbenzene*	<0.050	0.050	06/15/2019	ND	2.08	104	2.00	1.59	
Total Xylenes*	<0.150	0.150	06/15/2019	ND	6.26	104	6.00	1.43	
Total BTEX	<0.300	0.300	06/15/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 5	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1070	16.0	06/17/2019	ND	432	108	400	3.77	
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	06/14/2019	ND	185	92.3	200	3.85	
DRO >C10-C28*	<10.0	10.0	06/14/2019	ND	183	91.4	200	6.10	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	83.3	% 41-142)						
Surrogate: 1-Chlorooctadecane	83.0	% 37.6-14	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 whistoever 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 claims 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.

Celey D. Keene



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 06/12/2019 Sampling Date: 06/10/2019

Reported: 06/20/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 25 @ 1' (H902042-40)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/15/2019	ND	2.21	111	2.00	1.65	
Toluene*	<0.050	0.050	06/15/2019	ND	2.24	112	2.00	0.599	
Ethylbenzene*	<0.050	0.050	06/15/2019	ND	2.08	104	2.00	1.59	
Total Xylenes*	<0.150	0.150	06/15/2019	ND	6.26	104	6.00	1.43	
Total BTEX	<0.300	0.300	06/15/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 73.3-12	9						
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	06/17/2019	ND	432	108	400	3.77	
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	06/14/2019	ND	185	92.3	200	3.85	
DRO >C10-C28*	<10.0	10.0	06/14/2019	ND	183	91.4	200	6.10	
EXT DRO >C28-C36	<10.0	10.0	06/14/2019	ND					
Surrogate: 1-Chlorooctane	86.7	% 41-142	,						
Surrogate: 1-Chlorooctadecane	85.9	% 37.6-14	7						

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Celey D. Keine



Notes and Definitions

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

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: ARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Etech Environmental & Safety Solutions, Inc.

	an a carety columns, life.				ANALYSIS REQUEST	
Project Manager: Daniel Dominguez		P.O. #:				
Address: P.O. Box 301		Company:				
City: Lovington	State: NM Zip: 88260	Attn:	***************************************			
Phone #: (575) 396-2378	Fax #: (575) 396-1429	Address:				
Project #: 10034	Project Owner: Chisholm Energy	1	A. Link Market Street Control of			
Project Name: Cottonwood 29-32 Fed		State:		-	1B)	
Project Location: Eddy	raktiineen raktioon maanamaanamaa jejinni jejinni jejin j	#	oride	015	802	
	***************************************	Florie #.	Total construction of the second construction of		(8	
Sampler Name: Daniel Dominguez		Fax #:	Ch	+	EX	
FOR LAB USE ONLY	D	MATRIX PRESERV.	SAMPLING	-	ВТІ	
Lab I.D. Sample I.D.	AB OR (C)OME NTAINERS UNDWATER TEWATER	R: BASE: COOL				
H902042	# CO GRO	SOIL OIL SLUD OTHE ACID/ ICE / (DATE TIME			
SP 1 @ Surface	9 1			×	×	
SP 2 @ Surface	9 1	x			×	
SP 3 @ Surface	9 1	×	6/10/19 12:20 x		×	
SP 4 @ Surface	<u>g</u> 1	×	12:30		×	1
SP 5 @ Surface	9 1	×	12:40		×	
SP 6 @ Surface	9 1	× 6	12:50		×	
/ SP 7 @ Surface	9 1	×			×	
SP 8 @ Surface	9 1	×	13:10		×	
SP 9 @ Surface	9 1	×	13:20		×	
PLEASE NOTE: Liability and Damages. Cardinate liability and Damages. Cardinate liability and clients.	9 1	× 6	6/10/19 13:30 x	×	×	
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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Etech Environmental & Safety Solutions, Inc.

Company Name:	Etech Environmental & Safety Solutions, Inc.	al & Safety Solutio	ons, li	٦c.				- 1					3	BILL 70	100000 1000000			1	J	D	ANAL YSIS	3	ŝ	D.	REQUEST	ابَر	ű				_
Project Manager:	: Daniel Dominguez									P.O.	#						Ī	1	+						-1		1	1/	-	-3	
Address: P.O	P.O. Box 301									Con	Company:	:Y																			
City: Lovington	7	State: NM	Zip	Zip: 88260	260					Attn:	•																				_
Phone #: (575	(575) 396-2378	Fax #: (575) 396-1429	96-1	129						dd	Address:	9.		***************************************																	_
Project #: 10034	34.	Project Owner:		\mathcal{Q}	ish	Chisholm Energy	Ene	ergy		City:															_		_				
Project Name:	Cottonwood 29-32 Fed			and the same of						State:	D.			Zip:		е	SM)	1B)	A L	_									_		_
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Sampler Name:	Daniel Dominguez								_	Fax #:	#	1			***************************************	hlo	H (8	X (08.0												_
FOR LAB USE ONLY				H			MATRIX	₽ X		70	RE	PRESERV	4	SAMPLING	ดิ	(TP	ЗТЕ													
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14	SP 12 @ 1'		9	_			×				-	×		6/10/19	13:55	×	×	×							-		7/				
	SP 13 @ Surface		ပ	_			×			-		×		6/10/19	14:00	×	×	×			Ш				+						
16	SP 13 @ 1'		ထ	_			×					×		6/10/19	14:05	×	×	×			Ш				-					+	
-	SP 14 @ Surface		9	_			×					×		6/10/19	14:10	×	×	×							=				+	1	_
	SP 14 @ 1'		ပ	_			×					×		6/10/19	14:15	×	×	×	ħ										-	7	
191	SP 15 @ Surface		9	_			×					×		6/10/19	14:20	×	×	×							-				-	+	_
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Page 45 of 46

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Project Manager: Daniel Dominguez	with the second control of the second contro	*	1	000000000000000000000000000000000000000	+	1		
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City: Lovington	State: NM Zip: 88260	Attn:	***************************************		-			
Phone #: (575) 396-2378	Fax #: (575) 396-1429	Address:	H) HAMAL — A MARIAN AND AND AND AND AND AND AND AND AND A					
Project #: 10034	Project Owner: Chisholm Energy		THE STATE OF THE PARTY OF THE P		-	-		
Project Name: Cottonwood 29-32 Fed	reservines commences and the control of the control		Zip:	•	5M)	1B)		
Project Location: Eddy		Phone #:		rid				
- 1	AND THE PROPERTY OF THE PROPER	FIIOIE #.	***************************************	lo				
Sampler Name: Daniel Dominguez		Fax #:		Chl		9		
FOR LAB USE ONLY		MATRIX PRESERV	RV. SAMPLING	***************************************				
	ERS ATER							
1902047 Sample I.D.	G)RAB OR CONTAIN ROUNDW /ASTEWA	IL LUDGE THER: CID/BASE CE / COOL	THER:					
21 SP 16 @ Surface		×		14:30 ×	×	×		
_	_		6/10/19		+			
23 SP 17 @ Surface	_		6/10/19					
24 SP 17 @ 1'	_	×	6/10/19					
25 SP 18 @ Surface			6/10/19					
26 SP 18 @ 1'	9 1 ×		6/10/19					
27 SP 19 @ Surface	9 1 ×	×	6/10/19			10		
26 SP 19 @ 1'	9 <u>1</u>	×	6/10/19					
29 SP 20 @ Surface	9 1 ×	×	6/10/19					
50 SP 20 @ 1'	(Q)	×	6/10/19	15				
Damages. Cardinat's liability and client hose for negligence and any other cau inal be liable for incidental or conseque out of or related to the performance or	's exclusive termedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the see whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the ay entral damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, if services herefurther by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or phenyine.	ndract or tort, shall be limited to the g and received by Cardinal within 3 ons, loss of use, or loss of profits in claim is based upon any of the abo	amount paid by the client O days after completion o curred by client, its subsi we stated reasons or othe	ient for the on of the applicable otherwise.				
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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name.	: ctech chylronmental & safety solutions, inc.	al & Salety Solution	18, 11	nc.						****			t	BILL 10					ANALYSIS		REQUEST	
Project Manager:	r: Daniel Dominguez	And the second second of the second s								۵.	P.O. #:	7.	17									
Address: P.C	P.O. Box 301	mitya jedina sana sana sinakana sana sana sana sana sana sana san								S	ğ	Company:	÷									
City: Lovington) <u> </u>	State: NM	Zip	Zip: 88260	1260	0				₽	Attn:											
Phone #: (57	(575) 396-2378	Fax #: (575) 396-1429	96-14	429						A	Address	SS										
Project #: 10034)34	Project Owner:		Ω	nish	Chisholm Energy	9	erg	4	city:	₹.			100000000000000000000000000000000000000)				
Project Name:	Cottonwood 29-32 Fed									St	State:			Zip:	The state of the s	е	5M)	1B)				
Project Location:	ı: Eddy				-			***************************************		맞	Phone #:	#				orid	301	(802				
Sampler Name:	Daniel Dominguez								***************************************	Fa	Fax #:	- manual				hle	H (EX (
FOR LAB USE ONLY							MATRIX	B			밁	PRESERV	ER	. SAMPLING	G	(TP	вт				
Lab I.D.	Sample I.D.	. D	G)RAB OR (C)OMP	CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	DIL	SLUDGE	OTHER:	ACID/BASE:	CE / COOL	OTHER:	DATE	TIME							
3	SP 21 @ Surface		9	_			×					×		0	15:15	×	×	×				
7.6.	SP 21 @ 1'		9	خـ			×					×		6/10/19	15:20	×	×	×				
53	SP 22 @ Surface		9	_			×					×		6/10/19	15:25	×	×	×				
34	SP 22 @ 1'		9	_			×					×		6/10/19	15:30	×	×	×				
35	SP 23 @ Surface		9	_			×					×		6/10/19	15:35	×	×	×				
ojć.	SP 23 @ 1'		9				×					×		6/10/19	15:40	×	×	×				
77	SP 24 @ Surface		9	_			×					×		6/10/19	15:45	×	×	×				
38	SP 24 @ 1'		9	_	1		×				1	×		6/10/19	15:50	×	×	×				
.91	SP 25 @ Surface		9	_			×				***************************************	×		6/10/19	15:55	×	×	×				
	SP 25 @ 1'		9	_			×					×		6/10/19	16:00	×	×	×				
PLEASE NOTE: Liability and analyses. All claims including service. In no event shall Cal affiliates or successors arising	PLEASE NOTE: Lability and Damages, Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tont, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal which 30 days after competition of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without inflatation, business interruptions, loss of use, or loss of profits incurred by Claims is based upon any of the above stated reasons or otherwise.	s exclusive remety for any claim arising whether based in contract or ton, shall be limited to the amount paid by the client for the available for the surface of the contract of the surface of the contract of the surface of the contract o	m arisir d waive t limitat al, rega	ng whe id unles tion, bu	ss mac ssiness of who	ased in de in w s interr	riting a	act or and rec s, loss sim is	tort, s beived of use	by Ca	limite rdinal ss of	within profits	he an	count paid by the clier ays after completion or red by client, its subs	nt for the of the applicable idiaries,							
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July 11, 2019

DANIEL DOMINGUEZ

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: COTTONWOOD 29-32 FED

Enclosed are the results of analyses for samples received by the laboratory on 07/08/19 13:48.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab 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.

Celey D. Keens

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

Lab Director/Quality Manager



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/01/2019

Reported: 07/11/2019 Sampling Type: Soil

Cool & Intact Project Name: COTTONWOOD 29-32 FED Sampling Condition: Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 7 @ 2' (H902314-01)

BTEX 8021B	mg,	'kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.06	103	2.00	0.682	
Toluene*	<0.050	0.050	07/10/2019	ND	2.09	104	2.00	1.06	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	1.98	99.0	2.00	2.19	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.04	101	6.00	2.63	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.4	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	07/10/2019	ND	400	100	400	3.92	
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	07/08/2019	ND	192	96.2	200	1.21	
DRO >C10-C28*	<10.0	10.0	07/08/2019	ND	191	95.6	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	07/08/2019	ND					
Surrogate: 1-Chlorooctane	115	% 41-142	?						
Surrogate: 1-Chlorooctadecane	119	% 37.6-14	7						

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Celecy D. Keine



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/01/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 2 @ 1' (H902314-02)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.06	103	2.00	0.682	
Toluene*	<0.050	0.050	07/10/2019	ND	2.09	104	2.00	1.06	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	1.98	99.0	2.00	2.19	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.04	101	6.00	2.63	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.8	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	07/10/2019	ND	400	100	400	3.92	
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	07/08/2019	ND	192	96.2	200	1.21	
DRO >C10-C28*	<10.0	10.0	07/08/2019	ND	191	95.6	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	07/08/2019	ND					
Surrogate: 1-Chlorooctane	106	% 41-142	?						
Surrogate: 1-Chlorooctadecane	108	% 37.6-14	7						

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Celey D. Keene



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/01/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: Sample Received By: Tamara Oldaker 10034

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 8 @ 1' (H902314-03)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	07/10/2019	ND	2.06	103	2.00	0.682	
Toluene*	2.53	0.200	07/10/2019	ND	2.09	104	2.00	1.06	
Ethylbenzene*	<0.200	0.200	07/10/2019	ND	1.98	99.0	2.00	2.19	
Total Xylenes*	21.9	0.600	07/10/2019	ND	6.04	101	6.00	2.63	
Total BTEX	24.5	1.20	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	157	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	07/10/2019	ND	400	100	400	3.92	
TPH 8015M	mg,	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1380	10.0	07/08/2019	ND	192	96.2	200	1.21	
DRO >C10-C28*	2980	10.0	07/08/2019	ND	191	95.6	200	1.40	
EXT DRO >C28-C36	112	10.0	07/08/2019	ND					
Surrogate: 1-Chlorooctane	200	% 41-142	?						
Surrogate: 1-Chlorooctadecane	160	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

Page 4 of 28



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/01/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: Sample Received By: Tamara Oldaker 10034

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 4 @ 2' (H902314-04)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.06	103	2.00	0.682	
Toluene*	<0.050	0.050	07/10/2019	ND	2.09	104	2.00	1.06	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	1.98	99.0	2.00	2.19	
Total Xylenes*	0.379	0.150	07/10/2019	ND	6.04	101	6.00	2.63	
Total BTEX	0.379	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	07/10/2019	ND	400	100	400	3.92	
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	07/08/2019	ND	192	96.2	200	1.21	
DRO >C10-C28*	101	10.0	07/08/2019	ND	191	95.6	200	1.40	
EXT DRO >C28-C36	14.9	10.0	07/08/2019	ND					
Surrogate: 1-Chlorooctane	119	% 41-142)						
Surrogate: 1-Chlorooctadecane	123	% 37.6-14	7						

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Celecy D. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 5 of 28



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/01/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 1 @ 2' (H902314-05)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.06	103	2.00	0.682	
Toluene*	<0.050	0.050	07/10/2019	ND	2.09	104	2.00	1.06	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	1.98	99.0	2.00	2.19	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.04	101	6.00	2.63	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	07/10/2019	ND	400	100	400	3.92	
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	07/08/2019	ND	192	96.2	200	1.21	
DRO >C10-C28*	<10.0	10.0	07/08/2019	ND	191	95.6	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	07/08/2019	ND					
Surrogate: 1-Chlorooctane	115	% 41-142	,						
Surrogate: 1-Chlorooctadecane	115	% 37.6-14	7						

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/01/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 5 @ 3' (H902314-06)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.06	103	2.00	0.682	
Toluene*	<0.050	0.050	07/10/2019	ND	2.09	104	2.00	1.06	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	1.98	99.0	2.00	2.19	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.04	101	6.00	2.63	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 5	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	07/10/2019	ND	400	100	400	3.92	
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	07/08/2019	ND	192	96.2	200	1.21	
DRO >C10-C28*	42.7	10.0	07/08/2019	ND	191	95.6	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	07/08/2019	ND					
Surrogate: 1-Chlorooctane	118 9	% 41-142	,						
Surrogate: 1-Chlorooctadecane	122 5	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/03/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 3 @ 1' (H902314-07)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.06	103	2.00	0.682	
Toluene*	<0.050	0.050	07/10/2019	ND	2.09	104	2.00	1.06	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	1.98	99.0	2.00	2.19	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.04	101	6.00	2.63	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	07/10/2019	ND	400	100	400	3.92	
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	07/08/2019	ND	192	96.2	200	1.21	
DRO >C10-C28*	<10.0	10.0	07/08/2019	ND	191	95.6	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	07/08/2019	ND					
Surrogate: 1-Chlorooctane	122 5	% 41-142	,						
Surrogate: 1-Chlorooctadecane	125	% 37.6-14	7						

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/03/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 6 @ 3' (H902314-08)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.06	103	2.00	0.682	
Toluene*	<0.050	0.050	07/10/2019	ND	2.09	104	2.00	1.06	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	1.98	99.0	2.00	2.19	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.04	101	6.00	2.63	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	07/10/2019	ND	400	100	400	3.92	
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	07/08/2019	ND	192	96.2	200	1.21	
DRO >C10-C28*	<10.0	10.0	07/08/2019	ND	191	95.6	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	07/08/2019	ND					
Surrogate: 1-Chlorooctane	113	% 41-142							
Surrogate: 1-Chlorooctadecane	115	% 37.6-14	7						

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/03/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: Sample Received By: Tamara Oldaker 10034

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 14 @ 3' (H902314-09)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.06	103	2.00	0.682	
Toluene*	<0.050	0.050	07/10/2019	ND	2.09	104	2.00	1.06	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	1.98	99.0	2.00	2.19	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.04	101	6.00	2.63	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 5	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	07/10/2019	ND	400	100	400	3.92	
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	07/08/2019	ND	192	96.2	200	1.21	
DRO >C10-C28*	18.6	10.0	07/08/2019	ND	191	95.6	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	07/08/2019	ND					
Surrogate: 1-Chlorooctane	121 9	% 41-142	,						
Surrogate: 1-Chlorooctadecane	126	% 37.6-14	7						

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Celecy D. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 10 of 28



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/03/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 13 @ 3' (H902314-10)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.06	103	2.00	0.682	
Toluene*	0.769	0.050	07/10/2019	ND	2.09	104	2.00	1.06	GC-NC
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	1.98	99.0	2.00	2.19	GC-NC
Total Xylenes*	9.32	0.150	07/10/2019	ND	6.04	101	6.00	2.63	
Total BTEX	10.1	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	190	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	07/10/2019	ND	400	100	400	3.92	
TPH 8015M	mg,	/kg	Analyze	ed By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1010	10.0	07/08/2019	ND	192	96.2	200	1.21	
DRO >C10-C28*	6860	10.0	07/08/2019	ND	191	95.6	200	1.40	
EXT DRO >C28-C36	887	10.0	07/08/2019	ND					
Surrogate: 1-Chlorooctane	254	% 41-142	?						
Surrogate: 1-Chlorooctadecane	302	% 37.6-14	7						

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/03/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: Sample Received By: Tamara Oldaker 10034

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 11 @ 2' (H902314-11)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.06	103	2.00	0.682	
Toluene*	<0.050	0.050	07/10/2019	ND	2.09	104	2.00	1.06	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	1.98	99.0	2.00	2.19	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.04	101	6.00	2.63	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	07/10/2019	ND	400	100	400	3.92	
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	07/08/2019	ND	192	96.2	200	1.21	
DRO >C10-C28*	34.6	10.0	07/08/2019	ND	191	95.6	200	1.40	
EXT DRO >C28-C36	24.6	10.0	07/08/2019	ND					
Surrogate: 1-Chlorooctane	118 9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	123 9	% 37.6-14	7						

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/03/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: Sample Received By: Tamara Oldaker 10034

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 12 @ 3' (H902314-12)

BTEX 8021B	mg/kg		Analyze	Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.06	103	2.00	0.682	
Toluene*	<0.050	0.050	07/10/2019	ND	2.09	104	2.00	1.06	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	1.98	99.0	2.00	2.19	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.04	101	6.00	2.63	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 5	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	07/10/2019	ND	400	100	400	3.92	
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	07/09/2019	ND	202	101	200	3.95	
DRO >C10-C28*	34.7	10.0	07/09/2019	ND	210	105	200	3.77	
EXT DRO >C28-C36	<10.0	10.0	07/09/2019	ND					
Surrogate: 1-Chlorooctane	95.3	% 41-142	?						
Surrogate: 1-Chlorooctadecane	120 9	% 37.6-14	7						

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/03/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 15 @ 5' (H902314-13)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.06	103	2.00	0.682	
Toluene*	<0.050	0.050	07/10/2019	ND	2.09	104	2.00	1.06	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	1.98	99.0	2.00	2.19	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.04	101	6.00	2.63	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6960	16.0	07/10/2019	ND	400	100	400	3.92	
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	07/09/2019	ND	202	101	200	3.95	
DRO >C10-C28*	<10.0	10.0	07/09/2019	ND	210	105	200	3.77	
EXT DRO >C28-C36	<10.0	10.0	07/09/2019	ND					
Surrogate: 1-Chlorooctane	101	% 41-142	?						
Surrogate: 1-Chlorooctadecane	125	% 37.6-14	7						

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/03/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 16 @ 2' (H902314-14)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.06	103	2.00	0.682	
Toluene*	<0.050	0.050	07/10/2019	ND	2.09	104	2.00	1.06	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	1.98	99.0	2.00	2.19	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.04	101	6.00	2.63	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	07/10/2019	ND	400	100	400	3.92	
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	07/09/2019	ND	202	101	200	3.95	
DRO >C10-C28*	<10.0	10.0	07/09/2019	ND	210	105	200	3.77	
EXT DRO >C28-C36	<10.0	10.0	07/09/2019	ND					
Surrogate: 1-Chlorooctane	104 5	% 41-142	,						
Surrogate: 1-Chlorooctadecane	121 9	% 37.6-14	7						

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/03/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: Sample Received By: Tamara Oldaker 10034

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 17 @ 2' (H902314-15)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.15	108	2.00	2.85	
Toluene*	<0.050	0.050	07/10/2019	ND	2.16	108	2.00	0.913	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	2.03	101	2.00	0.512	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.13	102	6.00	0.696	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 5	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	07/10/2019	ND	416	104	400	3.77	QR-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	07/09/2019	ND	202	101	200	3.95	
DRO >C10-C28*	14.9	10.0	07/09/2019	ND	210	105	200	3.77	
EXT DRO >C28-C36	31.3	10.0	07/09/2019	ND					
Surrogate: 1-Chlorooctane	98.9	% 41-142							
Surrogate: 1-Chlorooctadecane	118 9	% 37.6-14	7						

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/03/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 18 @ 2' (H902314-16)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.15	108	2.00	2.85	
Toluene*	<0.050	0.050	07/10/2019	ND	2.16	108	2.00	0.913	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	2.03	101	2.00	0.512	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.13	102	6.00	0.696	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 5	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	07/10/2019	ND	416	104	400	3.77	
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	07/09/2019	ND	202	101	200	3.95	
DRO >C10-C28*	<10.0	10.0	07/09/2019	ND	210	105	200	3.77	
EXT DRO >C28-C36	<10.0	10.0	07/09/2019	ND					
Surrogate: 1-Chlorooctane	89.3	% 41-142	,						
Surrogate: 1-Chlorooctadecane	105	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

Celecy D. Keine

Page 17 of 28



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/03/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 19 @ 3' (H902314-17)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.15	108	2.00	2.85	
Toluene*	<0.050	0.050	07/10/2019	ND	2.16	108	2.00	0.913	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	2.03	101	2.00	0.512	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.13	102	6.00	0.696	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 5	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	07/10/2019	ND	416	104	400	3.77	
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	07/09/2019	ND	202	101	200	3.95	
DRO >C10-C28*	<10.0	10.0	07/09/2019	ND	210	105	200	3.77	
EXT DRO >C28-C36	<10.0	10.0	07/09/2019	ND					
Surrogate: 1-Chlorooctane	91.3	% 41-142	?						
Surrogate: 1-Chlorooctadecane	106	% 37.6-14	7						

Surrogate: 1-Chlorooctadecane 106 % 37.6-147

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Celey D. Keine



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/03/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 20 @ 3' (H902314-18)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.15	108	2.00	2.85	
Toluene*	<0.050	0.050	07/10/2019	ND	2.16	108	2.00	0.913	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	2.03	101	2.00	0.512	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.13	102	6.00	0.696	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 5	% 73.3-12	9						
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	07/10/2019	ND	416	104	400	3.77	
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	07/09/2019	ND	202	101	200	3.95	
DRO >C10-C28*	<10.0	10.0	07/09/2019	ND	210	105	200	3.77	
EXT DRO >C28-C36	<10.0	10.0	07/09/2019	ND					
Surrogate: 1-Chlorooctane	99.1	% 41-142	,						
Surrogate: 1-Chlorooctadecane	117 9	% 37.6-14	7						

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Celey D. Keene



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/03/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 21 @ 2' (H902314-19)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.15	108	2.00	2.85	
Toluene*	<0.050	0.050	07/10/2019	ND	2.16	108	2.00	0.913	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	2.03	101	2.00	0.512	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.13	102	6.00	0.696	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	07/10/2019	ND	416	104	400	3.77	
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	07/09/2019	ND	202	101	200	3.95	
DRO >C10-C28*	<10.0	10.0	07/09/2019	ND	210	105	200	3.77	
EXT DRO >C28-C36	<10.0	10.0	07/09/2019	ND					
Surrogate: 1-Chlorooctane	90.4	% 41-142	?						
Surrogate: 1-Chlorooctadecane	106	% 37.6-14	7						

*=Accredited Analyte Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/03/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact Project Number: Sample Received By: Tamara Oldaker 10034

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 22 @ 2' (H902314-20)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.15	108	2.00	2.85	
Toluene*	<0.050	0.050	07/10/2019	ND	2.16	108	2.00	0.913	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	2.03	101	2.00	0.512	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.13	102	6.00	0.696	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.5	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	07/10/2019	ND	416	104	400	3.77	
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	07/09/2019	ND	202	101	200	3.95	
DRO >C10-C28*	<10.0	10.0	07/09/2019	ND	210	105	200	3.77	
EXT DRO >C28-C36	<10.0	10.0	07/09/2019	ND					
Surrogate: 1-Chlorooctane	96.9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	114	% 37.6-14	7						

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Celecy D. Keine



Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/03/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 23 @ 2' (H902314-21)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.15	108	2.00	2.85	
Toluene*	<0.050	0.050	07/10/2019	ND	2.16	108	2.00	0.913	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	2.03	101	2.00	0.512	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.13	102	6.00	0.696	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 5	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	07/10/2019	ND	416	104	400	3.77	
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	07/09/2019	ND	202	101	200	3.95	
DRO >C10-C28*	<10.0	10.0	07/09/2019	ND	210	105	200	3.77	
EXT DRO >C28-C36	<10.0	10.0	07/09/2019	ND					
Surrogate: 1-Chlorooctane	88.5	% 41-142	,						
Surrogate: 1-Chlorooctadecane	106	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/03/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 24 @ 2' (H902314-22)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.15	108	2.00	2.85	
Toluene*	<0.050	0.050	07/10/2019	ND	2.16	108	2.00	0.913	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	2.03	101	2.00	0.512	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.13	102	6.00	0.696	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 5	% 73.3-12	9						
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	07/10/2019	ND	416	104	400	3.77	
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	07/09/2019	ND	202	101	200	3.95	
DRO >C10-C28*	<10.0	10.0	07/09/2019	ND	210	105	200	3.77	
EXT DRO >C28-C36	<10.0	10.0	07/09/2019	ND					
Surrogate: 1-Chlorooctane	99.9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	119 9	% 37.6-14	7						

Surrogate: 1-Chlorooctadecane 119 % 37.6-147

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Analytical Results For:

Etech Environmental & Safety Solutions DANIEL DOMINGUEZ P.O. Box 301 Lovington NM, 88260

Fax To: (575) 396-1429

Received: 07/08/2019 Sampling Date: 07/03/2019

Reported: 07/11/2019 Sampling Type: Soil

Project Name: COTTONWOOD 29-32 FED Sampling Condition: Cool & Intact
Project Number: 10034 Sample Received By: Tamara Oldaker

Project Location: CHISHOLM ENERGY - EDDY CO NM

Sample ID: SP 25 @ 2' (H902314-23)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2019	ND	2.15	108	2.00	2.85	
Toluene*	<0.050	0.050	07/10/2019	ND	2.16	108	2.00	0.913	
Ethylbenzene*	<0.050	0.050	07/10/2019	ND	2.03	101	2.00	0.512	
Total Xylenes*	<0.150	0.150	07/10/2019	ND	6.13	102	6.00	0.696	
Total BTEX	<0.300	0.300	07/10/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 73.3-12	9						
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	07/10/2019	ND	416	104	400	3.77	
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	07/09/2019	ND	202	101	200	3.95	
DRO >C10-C28*	<10.0	10.0	07/09/2019	ND	210	105	200	3.77	
EXT DRO >C28-C36	<10.0	10.0	07/09/2019	ND					
Surrogate: 1-Chlorooctane	95.9	% 41-142	,						
Surrogate: 1-Chlorooctadecane	115 9	% 37.6-14	7						

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Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
GC-NC	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

Company Name		Etech Environmental & Safety Solutions Inc	0	3							0	מר ז		٦	1	1		2	ANIAI VOIC	5	-	1	2	Ī	4						1
Project Manager:					And the second of the second s	***************************************		P.O.	0.#:		1		22.00			+	-	- 2	_ }	3	7.0-5	f	18	7000	1			-			-4
Address: P.O	Box				***************************************			င္ပ	ᇙ	Company:	••	Etech	SCT								-										_
City: Lovington	Ä	State: NM	Zip	98 :0	Zip: 88260			Attn:	?				1000																		_
Phone #: (575	(575) 396-2378	Fax #: (575) 396-1429	96-1	429				Ad	Address:	SS:			**************************************						_		_		_						_		_
Project #: 10034	34	Project Owner:	••	Q	Chisholm Energy	nerg	٧	City:	!				***************************************				!		_										-		
Project Name:	Cottonwood 29-32	111111111111111111111111111111111111111						State:	te:			Zip:	***************************************	e	5M)	21B	.10												-		
Project Location:	ı: Eddy					1		Ph	Phone #:	#	1			orid	301		(002														
Sampler Name:	Matthew Grieco	1			***************************************			Fax #:	#:		j	The state of the s	***************************************	Chl	H (LA											_			
FOR LAB USE ONLY			P.		MA	MATRIX			PR	PRESERV	RV	SAMPLING	NG		TP	=	Di														
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designation of the last of the	SP 5 @ 3'		9		×					×		7/1/19	14:07	×	×	×	^	H			-7								-		-0
	SP 3 @ 1'		9	_	×					×		7/3/19	9:01	×	×	×	_			71/									53	Ш	-
SC.	SP 6 @ 3'		9	_	×					×		7/3/19	9:25	×	×	×	^														
9	SP 14 @ 3'		9	_	×					×		7/3/19	10:04	×	×	×	^				-								-		
PLEASE NOTE: Liability and	SP 13 @ 3'	d'e evolucite remody for any ri-	9	_	×					×		7/3/19	10:23	×	×	×	Ê	H			Н		П			Ш		H			
PLEASE NOTE: Lability and analyses, All claims including service. In no event shall Car affiliates or successors arising	FLEASE MOTE: Lability and Damages, Cardinal's lability and client's exclusive remedy for any balm arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for regisjence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after competion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without inflation, business interruptions, loss of use, or loss of profits incurred by client, its subsidieries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, requariless of whether such claim is based upon any of the above stated reasons or otherwise.	It's exclusive remedy for any ob- use whatsoever shall be deem uental damages, including witho of services hereunder by Cardin	aim aris ed waiv out limita nal, regu	sing who ed unle ation, b ardless	ether based in con ass made in writing usiness interruption s of whether such o	and re and re ts, loss taim is	ceived of use	by Ca	Ilmite rdinal ss of any of	within profits	30 da	arising whether based in contract or tort, shall be limited to the amount paid by the client for the waived unless made in writing and received by Cardinal within 30 days after completion of the limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries reparatless of whether such claim is based unon any of the above stated reasons or otherwise.	nt for the of the applicable sidiaries, herwise.								- 1			.1.11							
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Sampler - UPS - Bus - Other:	- Bus - Other:	1700	B	p		Intact	ntact H Yes	-	Λ		Ø	(Initials)																			
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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

		1 - 1	•																									
Company Name:	: Etech Environmental & Safety Solutions, Inc.	al & Safety Solution	s, In	c.							BIL	L 70						ANALYSIS REQUEST	ATA	SIS	R	Ö	贸	-				
Project Manager:	: Daniel Dominguez							P.O.). #:						1	T	1		-			-						
Address: P.O.	P.O. Box 301							င္ပ	Company:	ny:		Etech	ch L															
City: Lovington	5	State: NM	Zip:	Zip: 88260	260			Attn:	2			-																
Phone #: (575	(575) 396-2378	Fax #: (575) 396-1429	6-14	29				Ad	Address:	S			THE RESERVE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED						_									
Project #: 10034	34	Project Owner:		Ch.	Chisholm Energy	ner	gy	City:														-						
Project Name:	Cottonwood 29-32							State:	6.		7	Zin:	- Harrist Control of the Control of	е	SM)	1B)						_						
Project Location:	: Eddy					1		P	Phone #	#				rid	015	802												
Sampler Name:	Matthew Grieco							Eav #.	#	- Line			***************************************	hlo	3) H	Х (
_]			1	1				1			C	PI	TE			_									
TOX DAB COSE ONLY			MP.			MAIKIX	_ ×		77	PRESERV.		SAMPLING	G		Т	В												
Lab I.D.	Sample I.D.	Þ	RAB OR (C)ON	ONTAINERS	OUNDWATER STEWATER	L	JDGE	HER:	D/BASE:	/COOL	HER:	mi-ui-u																
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PLEASE NOTE: Liability and analyses. All claims including t service. In no event shall Card affiliates or successors arising	PLEASE NOTE: Liability and Damages, Cardinat'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 the client for the 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 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without finitiation, business interruptions, loss of use, or loss of profits incurred by Cleint, bisidishes, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, respondence such labels also based upon any of the above stated reasons or otherwise.	s exclusive remedy for any clain e whatsoever shall be deemed ntal damages, including without services hereunder by Cardinal	n arisin waived limitatio	g whet unless on, bus dless o	ther based in co is made in writing siness interruption	ontract ong and ions, lo	or tort, receive ss of u	, shall be ad by Car se, or los	limited dinal w is of pr	to the a vithin 30 ofits inc	days a	arising whether based in contract or tort, shall be limited to the amount paid by the client for th varient unless made in writing and received by Cardinal within 30 days after completion of the mitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries a regardless of whether such claim is based upon any of the above stated reasons or otherwise.	nt for the of the applicable idiaries, lenvise.		· X				1			1						124
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† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

FORM-006 Revision 1.0

Released to Imaging: 6/23/2021 10:34:01 AM

FORM-006 Revision 1.0

ARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240

Page 28 of 28

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Pg 3/3

(575)	(575) 393-2326 FAX (575) 393-2476	76																	
Company Name: Ete	Etech Environmental & Safety Solutions, Inc.	ıs, İn	Ç			8/1	BILL TO						AN	ANALYSIS	Sis	RE	REQUEST	ST	
Project Manager: Dar	Daniel Dominguez				Ø.	P.O. #:								\dashv					
Address: P.O. Box 301					C	Company:	Etech	ch Ch											
City: Lovington	State: NM	Zip:	Zip: 88260	260	Ą	Attn:													
Phone #: (575) 396-2378	378 Fax # : (575) 396-1429	96-14	29		A	Address:													
Project #: 10034	Project Owner:		Ch	Chisholm Energy	Ω.	City:)								
Project Name: Cottonw	Cottonwood 29-32				S		Zip:		e	5M)	21B								
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Sampler Name: Matthew Grieco	v Grieco		***************************************	***************************************	Ţ	v #.			hle	H (8	X (
_	Circo	1			12	Fax #:			C	Pŀ	ΓE								
FOR LAB USE ONLY		MP.		R		יייייייייייייייייייייייייייייייייייייי	SAMPLING	ŠG		Т	В								
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attention the tenth of the tent																			
PLEASE NOTE: Liability and Damages. O analyses. All claims including those for neg service. In no event shall Cardinal be liable affiliates or successors arising out of or rela-	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 the client for the analyses, All claims including those for regisjence and any other cause whatsoever shall be deemed whete unless made in writing and received by Cardinal within 30 days after completion of the applicable service, in no event shall Cardinal be liable for incidental or consequental damages, including without inflation, business interruptors, loss of use, or loss of profits incurred by client, its subsidiaries.	im arisir id waive ut limitat	ng who ion, bu	of whether such claim is based or tort, as made in writing and receive usiness interruptions, loss of undertakens and relations.	shall to	be limited to the amountainal within 30 days	ant paid by the client safter completion d by client, its subs	nt for the of the applicable sidiaries.											
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ATTACHMENT IV NMOCD Form C-141

RECEIVED

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources MAY 2 2 2018

Form C-141 Revised April 3, 2017

Oil Conservation Division 1220 South St. Francis Dr. DISTRIC PURPORT ESPX to appropriate District Office in accordance with 19.15.29 NMAC.

Santa Fe, NM 87505

Name of Company Chisholm Energy Operating, LLC_3/1/5 Contact Jennifer Elbod Address 801 Cherry St; Suite 1200-Unit 20, Fort Worth, TX 76102 Telephone No. 817-953-3728				Rel	ease Notifi	cation	opera	orrective A		al Deport	☐ Final Repor
Address 801 Cherry St; Suite 1200-Unit 20, Fort Worth, TX 76102 Telephone No. 817-953-3728 Facility Name Cottonwood 29-32 East Pad Mineral Owner	Name of C	omnany (Chisholm En	ergy One	erating, LLC.3	72/27			_ Intu	ai Keport	Final Repor
Facility Name Cottonwood 29-32 East Pad									8		
Surface Owner Mineral Owner API No. 30-015-43703 & 30-015-43703 & 30-015-43705 & 30-015-4370					roit worth, 12						
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Was Immediate Notice Given? Yes No Not Required If YES, To Whom?				Y.W.							- N. C. O. C.
By Whom? JENNIFER ELROD Was a Watercourse Reached? Yes No If YES, Volume Impacting the Watercourse. If a Watercourse was Impacted, Describe Fully.* Describe Cause of Problem and Remedial Action Taken.* LIGHTNING STRIKE CAUSING FIRE; MELTED PRODUCED WATER TANK INSIDE CONTAINMENT WILL CLEAN UP AREA AND REPLACE WATER TANK AND FIX ANY DAMAGED CONTAINMENT Describe Area Affected and Cleanup Action Taken.* 188 BBLS RELEASED INSIDE CONTAINMENT 15 BBLS REACH PAD; VACCUMED AND RECOVERED ALL RELEASED VOLUME. WILL ALSO CLEAR ANY CONTAMINATED SOIL ON PAD 5/23/18 I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. OIL CONSERVATION DIVISION Signature: JENNIFER ELROD Approved by Environmental Speciafists: Approved by Environmenta				IER TAN	IK.				605/21/18Date and	Hour of Discov	ery 05/21/18 PM
By Whom? JENNIFER ELROD Date and Hour 05/22/18-8:00 AM Was a Watercourse Reached? Yes No If a Watercourse was Impacted, Describe Fully.* Describe Cause of Problem and Remedial Action Taken.* LIGHTNING STRIKE CAUSING FIRE; MELTED PRODUCED WATER TANK INSIDE CONTAINMENT WILL CLEAN UP AREA AND REPLACE WATER TANK AND FIX ANY DAMAGED CONTAINMENT Describe Area Affected and Cleanup Action Taken.* 180 BBLS RELEASED INSIDE CONTAINMENT 15 BBLS REACH PAD; VACCUMED AND RECOVERED ALL RELEASED VOLUME. WILL ALSO CLEAR ANY CONTAMINATED SOIL ON PAD 5/23/18 I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a failed to adequately investigate and remediate contamination that pose a failed to adequately investigate and remediate contamination that pose affects to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. OIL CONSERVATION DIVISION Signature: Jennifer Elred Printed Name: JENNIFER ELROD Approved by Environmental Specialists. OIL CONSERVATION DIVISION Approved by Environmental Specialists. Approval Date: 5/22/JB Expiration Date: M//A Attached DATACHAR	was Immed	ate Notice (40.400	Yes F	No □ Not F	Required			II KIEM		
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public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. OIL CONSERVATION DIVISION	Describe Art 180 BBLS ALSO CLE	NG STRIK, EAN UP AI ea Affected RELEASEI EAR ANY C	E CAUSING REA AND RE and Cleanup D INSIDE CO CONTAMINA	FIRE; MEEPLACE V Action Ta NTAINM TED SOI	ELTED PRODUC WATER TANK A ken.* ENT 15 BBLS R L ON PAD 5/23/ e is true and com	EACH P	ANY DAM.	MED AND REC	OVERED ALL RE	suant to NMOC	CD rules and
Signature: Gennifer Elrod Printed Name: JENNIFER ELROD Approved by Environmental Specialist: Approval Date: 5/22/18 Expiration Date: N/A E-mail Address: jelrod@chisholmenergy.com Date: 05/22/2018 Phone: 817-953-3728 Approval Date: 5/22/18 Expiration Date: N/A Conditions of Approval: Bee Attached Date: 3/22/188	public health should their or the enviro	operations lonment. In a	ronment. The nave failed to addition, NMO	acceptan adequatel OCD acce	ce of a C-141 rep y investigate and	oort by the remediate	e NMOCD m te contaminat	parked as "Final R ion that pose a three the operator of	eport" does not re eat to ground wate responsibility for o	lieve the operate r, surface water compliance with	or of liability r, human health n any other
Printed Name: JENNIFER ELROD Approved by Environmental Specialist: Approval Date: 5/22/18 Expiration Date: N/A E-mail Address: jelrod@chisholmenergy.com Conditions of Approval: Bate: 05/22/2018 Phone: 817-953-3728	Signature:	Genn	ifer Ex	lod					w/1 /	DIVISION	Ī
E-mail Address: jelrod@chisholmenergy.com Date: 05/22/2018 Phone: 817-953-3728 Conditions of Approval: See) Attached Dept. 4108	Printed Nam		0				Approved by	Environmental S	pecialist:	and the	-
Date: 05/22/2018 Phone: 817-953-3728 See attached 200-4108	Title: SR. I	REGULATO	ORY ANALY	ST			Approval Da	te: 5/22/18	Expiration	Date: N/	A
	E-mail Addı	ress: jelrod(achisholmene	ergy.com			Conditions o	f Approval:	Marian	Attached [1
Attach Additional Sheets If Necessary			-4-1621		: 817-953-3728			See U	Hachack	24	0.4768

District 1
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

JUL 1 6 2018

Form C-141 Revised April 3, 2017

1220 South St. Francis Dr. Santa Fe, NM 87505

Oil Conservation Division DISTRICT WARTESIA @ Dipopriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action *312/37*OPERATOR Initial Report ☐ Final Report Company CHISHOLM ENERGY OPERATING, LLC Contact JENNIFER ELROD (OFFICE)/PAUL MARTINEZ (FIELD) Address801 CHERRY STREET, SUITE 1200-UNIT 20 FORT WORTH, TX 751Delephone No. 817-953-3728(JENNIFER)/325-206-1722 (PAUL) Facility Name COTTONWOOD 29-32 FED COM WCA 3H/WCB 4H Facility Type WELL LOCATION Surface Owner STATE Mineral Owner API No. & 30-015-43705 FEDERAL 30-015-43703 LOCATION OF RELEASE North/South Line East/West Line Unit Letter Section Township Range Feet from the Feet from the County **EAST** 29 **26S NORTH** 1300 **EDDY** 26E 100 Latitude Longitude NAD83 NATURE OF RELEASE Type of Release FRAC TANK OVERFLOW Volume of Release 50 BBLS Volume Recovered 0 BBLS Source of Release TANK 7/15/18 Date and Hour of Occurrence 7/15/18Date and Hour of Discovery If YES, To Whom? Was Immediate Notice Given? ☐ Yes ☐ Not Required By Whom? Date and Hour Was a Watercourse Reached? If YES, Volume Impacting the Watercourse. Yes X No If a Watercourse was Impacted, Describe Fully.* Describe Cause of Problem and Remedial Action Taken.* HAULER DID NOT HAUL LOAD: USING FRAC TANKS AS REMEDIAL STORAGE WHILE WAITING ON TANK REPLACEMENT DUE TO LIGHTNING STRIKE. RELEASE WAS ON WELL PAD ONLY. Describe Area Affected and Cleanup Action Taken.* AREA WILL BE SCRAPED AND ANY OTHER REMEDIATION THAT IS NEEDED. PLANS TO START CLEANUP ON 7/16/18 I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. OIL CONSERVATION DIVISION Gennifer Elrod Signature: Approved by Environmental Speciali Printed Name: JENNIFER ELROD SR. REGULATORY ANALYST Approval Date: **Expiration Date:** E-mail Address: jelrod@chisholmenergy.com Attached

Phone: 817-953-3728

07/16/2018

Date

^{*} Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID	
District RP	2RP-5560
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible	Party CHIS	HOLM ENERGY	OPERATING,, L	LC OGRID	372137
Contact Nam					elephone 432-413-9747
Contact emai	il tgrei	EN@CHISHOLM	ENERGY.COM	Incident #	(assigned by OCD)
Contact mail	ing address	801 CHERRY ST	REET, SUITE 120	00, UNIT-20 FOI	RT WORTH, TX 76102
				of Release So	
Latitude 32	.001087			I ongitude	-104.307703
Lutitude			(NAD 83 in deci	imal degrees to 5 decin	
Site Name Co	OTTONWO	OD 29-32 FED C	OM WCB 4H	Site Type	WELL LOCATION
Date Release	Discovered	05/26/2019		API# (if app	licable) 30-015-43705
** ** *					
Unit Letter	Section	Township	Range	Cour	ity
A	29	26S	26E	EDDY	
Surface Owner				Volume of 1	
Crude Oil		(s) Released (Select al Volume Release		calculations or specific	justification for the volumes provided below) olume Recovered (bbls)
X Produced		Volume Release	,		Volume Recovered (bbls) 150
			ion of dissolved ch	loride in the	X Yes □ No
Condensa	te	Volume Release			Volume Recovered (bbls)
Natural G	as	Volume Release	d (Mcf)		Volume Recovered (Mcf)
Other (de	scribe)	Volume/Weight	Released (provide	units)	Volume/Weight Recovered (provide units)
Cause of Rele	40'X	(20'X2'' = 23.7 BB)		5.9 BBLS, 40'X20	APPROXIMATELY 198.8 BBLS 00'X2" =237.5 BBLS

State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

	onsible party consider this a major release?
release as defined by 19.15.29.7(A) NMAC? OVER 25 BBLS	
19.15.29.7(A) NMAC? OVER 25 BBLS	
X Yes □ No	
If YES, was immediate notice given to the OCD? By whom? To v	· · · · · · · · · · · · · · · · · · ·
YES, CHISHOLM EMPLOYEE CALLED	DIST 2 OFFICE AND LEFT MESSAGE
Initial F	Response
The responsible party must undertake the following actions immedian	tely unless they could create a safety hazard that would result in injury
The source of the release has been stopped.	
The impacted area has been secured to protect human health an	d the environment.
Released materials have been contained via the use of berms or	dikes, absorbent pads, or other containment devices.
All free liquids and recoverable materials have been removed a	nd managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain	n why:
	remediation immediately after discovery of a release. If remediation
has begun, please attach a narrative of actions to date. If remedia within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC),	l efforts have been successfully completed or if the release occurred
, , , , , , , , , , , , , , , , , , , ,	please attach an information needed for closure evaluation.
I hereby certify that the information given above is true and complete to th	1 4 C 1 11 1 1 4 14 4 4 0CD 1 1
	e best of my knowledge and understand that pursuant to OCD rules and stifications and perform corrective actions for releases which may endanger
regulations all operators are required to report and/or file certain release no public health or the environment. The acceptance of a C-141 report by the	otifications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have
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State of New Mexico Oil Conservation Division

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Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discover date.

What is the shallowest depth to groundwater beneath the area affected by the release?		45 ft	(ft. bgs)		
Did this release impact groundwater or surface water?	Y	Yes 🗸	No		
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<u> </u>	Yes 🗸	No		
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<u> </u>	Yes 🗸	No		
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<u> </u>	Yes 🗸	No		
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<u> </u>	Yes 🗸	No		
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	Y	Yes 🗸	No		
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<u> </u>	Yes 🗸	No		
Are the lateral extents of the release within 300 feet of a wetland?	<u> </u>	Yes 🗸	No		
Are the lateral extents of the release overlying a subsurface mine?	☐ Y	Yes 🗸	No		
Are the lateral extents of the release overlying an unstable area such as karst geology?	✓ Y	Yes 🗌	No		
Are the lateral extents of the release within a 100-year floodplain?	☐ Y	Yes 🗸	No		
Did the release impact areas not on an exploration, development, production or storage site?	<u> </u>	Yes 🗸	No		
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vercontamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	rtical e	xtents of	soil		
Characterization Report Checklist: Each of the following items must be included in the report.					
 Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitori Field data Data table of soil contaminant concentration data 	ing wel	lls.			
Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release	se				
☑ Boring or excavation logs☑ Photographs including date and GIS information					
Topographic/Aerial maps					
Laboratory data including chain of custody					

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. Than plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modifies by site- and release-specific parameters.

State of New Mexico Oil Conservation Division

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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name:	Jennifer Elrod	Title:	Sr. Regulatory Analyst
Signature:		Date:	
email:	jelrod@chisholmenergy.com	Telephone:	817-953-3728
OCD Only			
Received by:		Date:	

State of New Mexico Oil Conservation Division

Incident ID	nAB1814341650
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: Each of the following items must be included in the report.							
Detailed description of proposed remediation technique							
Scaled sitemap with GPS coordinates showing delineation points							
Estimated volume of material to be remediated							
Closure criteria is to Table 1 specifications subject to 19.15.29.12	(C)(4) NMAC						
Proposed schedule for remediation (note if remediation plan time)	Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)						
<u>Deferral Requests Only:</u> Each of the following items must be confi	rmed as part of any request for deferral of remediation.						
Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.							
Extents of contamination must be fully delineated.							
Contamination does not cause an imminent risk to human health, the environment, or groundwater.							
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.							
Printed Name: Jennifer Elrod	Title: Sr. Regulatory Analyst						
Signature:	Date:						
email: <u>jelrod@chisholmenergy.com</u>	Telephone: 817-953-3728						
OCD Only							
Received by:	Date:						
Approved	Approval Denied Deferral Approved						
Signature: Karen Collins	Date: 6/23/2021						

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 2547

CONDITIONS

Operator:	OGRID:
CHISHOLM ENERGY OPERATING, LLC	372137
801 Cherry Street	Action Number:
Fort Worth, TX 76102	2547
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

(Created	Condition	Condition
E	Ву		Date
ī	kcollins	The offered remediation plan is approved for all 3 release incidents covered currently with nAB1814341650. In the future for closure report each individual incident will need to be placed into	6/23/2021
		OCD portal. Remember one closure report can be utilized but must be placed 3 individual times associated with each incident.	